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UNITED NATIONS

ECONOMIC DEVELOPMENT AND PLANNING IN ASIA AND THE FAR EAST

The Agricultural Sector

Economic Bulletin for Asia and the Far East
Vol. VIII, No. 3. November 1957

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Vol. VIII, No. 3, November 1957

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Bangkok 1957

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The following symbols have been used in the tables throughout the report:

Three dots (...) indicate that data are not available or are not separately reported

A dash (—) indicates that the amount is nil or negligible

A blank in a table indicates that the item is not applicable

A minus sign (-) indicates a deficit or decrease

A full stop (.) is used to indicate decimals

A comma (,) is used to distinguish thousands, millions and billions

A slash (/) indicates a crop year or financial year, e.g., 1956/57

A hyphen (-) between dates representing years, e.g., 1950-1956, signifies the full period involved, including the beginning and end years.

Reference to "tons" indicate metric tons, and to "dollars", United States dollars, unless otherwise stated.

The term "billion" signifies a thousand million.

Where reference is made to the "ECAFE region", the following countries have generally been included, subject to limitation of data: Afghanistan, British Borneo, Burma, Cambodia, Ceylon, China, Hong Kong, India, Indonesia, Japan, Korea, Laos, Malaya, Nepal, Pakistan, Philippines, Thailand and Viet-Nam.

REPORT OF THE WORKING PARTY ON ECONOMIC DEVELOPMENT AND PLANNING (THIRD SESSION) TO THE ECONOMIC COMMISSION FOR ASIA AND THE FAR EAST (FOURTEENTH SESSION)

Introduction

The third session of the Working Party on Economic Development and Planning in Asia and the Far East, sponsored jointly by the Economic Commission for Asia and the Far East (ECAFE) and the Food and Agriculture Organization of the United Nations (FAO), was held at the ECAFE Headquarters, Bangkok, Thailand from 16 to 28 September 1957, in accordance with a programme of work approved by the Commission at its thirteenth session[1] and a recommendation of the third FAO Regional Conference, 1956.[2] The purpose of this meeting was to consider the planning and implementation of development programmes in the agricultural sector. Thirteen working meetings were held.

The Working Party was attended by thirty-eight representatives of seventeen countries members of the Commission. Observers were present from Italy and the Federal Republic of Germany. In addition, three observers from non-governmental organizations — the International Chamber of Commerce and the World Federation of Trade Unions—also attended. The list of participants is given in annex A.

The working papers for discussion included seven documents prepared by the ECAFE and FAO secretariats, one by the Fiscal and Financial Branch of the Bureau of Economic Affairs of the United Nations Secretariat at New York, one by the International Labour Office and twenty-two submitted by member governments or delegations. Eleven background documents were made available by the FAO secretariat and by governments. Annex B gives a list of all documents issued to the Working Party.

Mr. C. V. Narasimhan, the Executive Secretary of the Economic Commission for Asia and the Far East, greeted the Regional Representative for Asia and the Far East of the Director-General of the Food and Agriculture Organization and welcomed the participants of the Working Party. He traced the origins and reviewed the early activities of this Working Party which, in a comparatively short time, had come to occupy an important place in ECAFE's programme and which promised to be of even greater service to the countries of the region in the future. After laying a broad foundation for the appreciation of the main problems, policies and techniques in economic development and planning in Asia, the Working Party was now entering on a new stage in which it would look into these matters sector by sector. He considered that agriculture and its relation to the economy as a whole might fittingly be taken first. The production of food in Asia, let alone that of industrial raw materials, was clearly not yet solved. How should agriculture adjust its plans to meet the wide swings in its foreign markets, the vagaries of the weather and large increases in domestic demand arising out of the very process of economic development? How should it take account of competition from rival exporters? How far, in fact, was planning compatible with the farmer's way of life? These were some of the questions which he thought the Working Party would wish to consider. He expressed the hope that those entrusted with the formulation of agricultural policy in the countries of the region and with the task of helping to balance and shape the national economic plans as a whole would alike derive guidance from the participants' conclusions.

Mr. W. H. Cummings, Regional Representative of the Director-General of the Food and Agriculture Organization of the United Nations, expressed his pleasure on behalf of his organization at joining forces with ECAFE in this third session of the Working Party and at contributing to its deliberations. He pointed out that agriculture was not only by far the biggest sector in the economy of all the countries of this region, in terms both of man-power and of output, but also the base on which the industrial and other economic superstructure must be built. Increased productivity in agriculture and more adequate agricultural income were hardly possible until the non-agricultural population was large enough to provide an adequate market. FAO did not adopt a sectarian approach to agriculture, or think of industrial and agricultural development as opposed to one another. In its view, they were complementary, although in the short term they might compete for investment funds and other resources. He emphasized that agricultural planning was a relatively new and difficult field and that the exchange of experience between countries at this meeting was one of the most fruitful of approaches to it. He welcomed the prominence given in the agenda to the implementation of plans and to the translation of blueprints into achievements.

Mr. Rak Panyarachun, Acting Minister of Foreign Affairs of Thailand, read a message from His Excellency the Prime Minister of Thailand, P. Pibulsonggram. In welcoming the member of the Working Party, the Prime Minister emphasized that the subject to be discussed was highly appropriate, since agriculture had always been of primary concern to countries in the region.

[1] United Nations document E/2959—E/CN.11/454.

[2] Food and Agriculture Organization of the United Nations, *Report of the Third Regional Conference for Asia and the Far East* (Rome, 1957).

He was confident that the discussion would be very profitable. He wished the session every success in its deliberations.

Mr. Surapongs Trivatna, Deputy Minister of Economic Affairs of Thailand, declared the session open. He emphasized that this, the third session of the Working Party, had a special significance in that it was being jointly sponsored by ECAFE and FAO. He considered the subject matter proper, timely and important and emphasized that, in spite of all the scientific progress in this atomic age, nature was still the decisive factor. He appreciated the co-operative spirit in which delegates would be contributing their expert knowledge to make this world a better place for the teeming millions dependent on agriculture. He was confident that the session would be successful.

A vote of thanks for the Prime Minister's message and for the opening address by the Deputy Minister of Economic Affairs was proposed by the representative of Burma and was carried by acclamation.

Mr. Bundhit Kantabutra (Thailand) was elected Chairman. Mr. Kazushi Ohkawa (Japan) and U Hpu (Burma) were elected first and second Vice-Chairmen respectively.

The provisional agenda which had been submitted by the secretariat was adopted without amendment; after slight modification, the provisional annotated agenda submitted by the secretariat also was adopted. These documents are reproduced as annexes C and D respectively.

The Working Party appointed a Drafting Committee composed of U Hpu (Burma), Mr. C. T. C. Fernando (Ceylon), Mr. T. H. Shen (China), Mr. Kazushi Ohkawa (Japan), Mr. J. V. White (New Zealand) and Mr. C. A. Majid (Pakistan) to prepare the report. Mr. T. H. Shen was elected Chairman of the Drafting Committee.

After the adoption of the report at the end of the session, the delegates on a motion by Mr. George R. Jacobs (United States of America) voted to express their appreciation of the work of the Drafting Committee. The Executive Secretary moved a vote of thanks to FAO, the participating experts, the Chairman and the Government of Thailand. In reply, Mr. Bundhit Kantabutra, as Chairman and on behalf of the Government of Thailand, thanked the members of visiting delegations and the FAO-ECAFE secretariat for all their good work.

Implications for Agriculture of Economic Development

By taking up a particular sector of the economy, the Working Party initiated a new phase of its activities. Previous sessions had been concerned with the economy as a whole. In narrowing the focus of its attention to agricultural planning and development, the Working Party recognized that it was essential for fruitful discussion of the actual problems involved, as well as for continuity in its own work, always to keep in view the wider aim of economic development, namely, greater production and higher living standards. Thus, the problems and techniques of agricultural development planning and implementation were reviewed, not in isolation, but in their relation to economic development as a whole and, more particularly, to the dynamic factor of industrialization.

Certain general propositions were accordingly taken as a point of departure for the discussion. In the first place, it was accepted as axiomatic that agricultural development depends on non-agricultural (or, broadly speaking, on industrial) development, and, conversely, that industrial progress depends on agricultural development. In short, what was needed was balanced growth. This mutual dependence involved reciprocal relationships both of demand and of supply. Given its present terms of reference, the Working Party would have to devote particular attention to the implications of the industrial and general economic development, current and projected, of the countries of Asia and the Far East for their agricultural development and planning.

Over 60 per cent of the people in the ECAFE region were currently dependent on agriculture (including forestry and fisheries), and nearly half of the national product was of agricultural origin. In virtually all these countries, agriculture would clearly be called on to grow more food (and also somewhat more diversified food) for domestic consumption, to produce more raw materials for domestic industry and to make the maximum contribution towards an increase in export earnings. If these things could not be done at a time when countries were attempting to accelerate economic development, there would inevitably be serious consequences, in particular, a sharp rise in the cost of living, a strain or increased pressure on the balance of payments, a slowing down of the rate of industrial development, or a combination of several of these evils. The increased agricultural output would have to be produced by a relatively, if not an absolutely, smaller number of persons, since a shift of labour to industry would be taking place. This shift might cause strains in agriculture in some countries, while in others it might provide a welcome means of relieving rural under-employment. In either case, however, it clearly pointed to the need for increased agricultural productivity.

At the same time as agriculture was being called on to produce substantially more, with a smaller proportion of the total labour force, it would necessarily be competing for scarce capital with sectors of the economy such as transport which obviously, although indirectly, benefit rural areas and support agriculture, and also with a rapidly growing manufacturing sector. On the other hand, manufacturing industry would in fact be helping agriculture, both by providing agricultural requisites such as machinery and fertilizer and also by making available a wider range of consumer goods to rural families. Finally, underlying all these changes, there was a gradual merging of agriculture with the money economy after centuries of life largely founded on a subsistence basis.

The Working Party did not attempt to indicate what rates of change might be considered likely or necessary with respect to the foregoing factors. Particularly in view of differences in the situation of food-surplus and food-deficit countries, no single conclusion on this

subject could be expected to have general validity. In regard to food production, the Working Party nevertheless took note of the fact that, for the region as a whole, an annual rate of increase of about 1.5 per cent would merely keep up with the growth of population. A considerably higher rate of growth would therefore have to be achieved if, as was clearly desirable, the farmers of the region were also going to meet a rising per capita demand for food, based on rising income levels, and reduce the recent dependence on food imports from outside the region. In the case of raw materials needed to meet domestic requirements, the very nature of the industrialization process indicated that the rate of increase of production would have to be considerably more rapid than that for food.

In considering agricultural production for export, the Working Party emphasized the need for larger export earnings in order to make it possible to finance economic development and also to solve balance of payments problems. It was necessary to import substantial quantities of capital goods for development purposes and at the same time keep import controls on consumption goods from becoming unworkably stringent. Agricultural exports were, in general, the traditional foreign exchange earners of the region. It was recognized that the demand for some of these exports was relatively inelastic, and that, in the absence of concerted action to stabilize markets, prices were subject to great fluctuations. It was clear, therefore, that agricultural development and planning in the countries of the region were dependent on trends in world trade and were therefore as much influenced by international as by domestic conditions.

Agricultural Development Plans of Countries of Asia and the Far East

Nine countries of the region—Afghanistan, Burma, Cambodia, China (both Taiwan and mainland), India, Japan, Malaya, Nepal, Pakistan—have adopted plans for economic development, including development of the agricultural sector, and implementation is under way. In an additional five countries, agricultural development is proceeding either under a previous plan now subject to revision (Ceylon, Indonesia, southern Korea and the Philippines) or within the framework of the contemplated plan (southern Viet-Nam).[3] Agricultural development in Thailand consists mainly of projects formulated at the departmental level.

Scope of plans

Most of the plans take the form of a comprehensive programme of public development expenditure in the agricultural sector, more or less closely integrated with over-all economic needs. In many cases, estimates of private investment are included, and, in certain countries, e.g. Japan, such projections are an essential feature of the plan.

Plans for public investment in agriculture usually relate to crop production, animal husbandry, forestry and fisheries. The highest proportion of investment is generally allocated to crop production, but strong emphasis is placed on forestry in Nepal and China (Taiwan) and on fisheries in the latter country. The programmes of implementation include:

(*a*) Measures aimed at directly increasing production—irrigation, land development and reclamation, use of fertilizers, pest and disease control;

(*b*) Measures to provide services as aids to production or to future planning—extension, community development, basic surveys and research;

(*c*) Measures to provide incentives to producers—price policies, subsidies, tax concessions;

(*d*) Measures to promote institutional changes necessary for sustained efficient production—agrarian reforms, credit and marketing facilities.

Objectives of plans

Agricultural development, in common with general economic development, aims at the economic and social advancement of the population through an increase in production and productivity. The major objective of development plans for the agricultural sector in countries of the region is to improve the balance of payments. It is hoped to do so by increasing the output of traditional agricultural export products or by finding new exports and outlets (rice in Burma and Thailand; tea in Ceylon and India; cotton and jute in India and Pakistan; rubber in Ceylon, Indonesia, Malaya; coco-nut products in Ceylon, Indonesia and the Philippines); by increasing domestic production of food-grains to reduce or limit imports (Ceylon, India, Indonesia, Japan, southern Korea, Malaya, Pakistan and the Philippines); and by stepping up home production to reduce imports of agricultural products required for essential industries such as jute in China (Taiwan) and India.

Diversification of agriculture is an important long-term objective in some countries. Its aim is to lessen dependence on a few main export crops, to meet the demand for a more varied diet or to utilize undeveloped resources (livestock in e.g., India, Japan and southern Korea). In some cases it is planned to develop types of agricultural products, especially fibres, which will provide raw materials for the expansion of domestic industries as in Burma, China (Taiwan), Indonesia and the Philippines.

Targets specified in plans

The agricultural plans of the various countries of the region differ widely with regard to the type and scope of the targets established. Some countries such as Burma, China (Taiwan), India, Japan, Pakistan and the Philippines have set quantitative targets over the plan period for production, trade and consumption and for the means to be used to achieve the output targets. Others have not set comprehensive output targets (Cambodia, Ceylon, Malaya, Nepal) but have established quantitative targets for main inputs during the plan

[3] The detailed contents of plans of the countries of the ECAFE region are summarized in tables in an article on "Agricultural development and planning in countries of Asia and the Far East", also published in the present issue of the *Bulletin*.

period, such as the new area to be irrigated, the quantities of fertilizers to be produced or distributed and the areas to be planted with improved planting material.

Since, in many countries of the region, the supplies of main inputs are largely controlled by government policy, input targets can be established for the plan period with some assurance. However, the setting of quantitative production targets is a more uncertain procedure, unless there is available a good deal of statistical and other information on the land and agriculture of the country and on the responses of the various crops and livestock to the planned inputs in different districts. The Working Party felt that it was desirable to establish quantitative targets for both input and output items as far as the data available permitted and to strive constantly to improve the basic data. Quantitative targets in agriculture are essential to obtain complete estimates of the growth of the economy, sector by sector, over the plan period, especially if gross national product is used to measure economic growth. It is important, however, to avoid rigidity in production targets and to revise them in the light of additional knowledge and changing circumstances. It is therefore not necessary to publish all targets.

Formulation of plans

It is apparent from the information available to the Working Party that the central ministries concerned with agriculture are being called upon to assume the major responsibility for the initial formulation of development programmes in consonance with the over-all objectives or financial resources indicated by the central planning organizations. Within the ministries of agriculture, this work is being handled by administrators in addition to their other activities, though in some cases special planning units have also been created on a temporary basis.

In countries where more than one ministry in the central government is responsible for agriculture, it is essential to set up an organization to co-ordinate planning. Such co-ordination is usually attempted by the planning board or council or by the cabinet at the policy level. This is also true as regards the co-ordination of agricultural plans with those for the other sectors of the economy. Several countries are obtaining good results by establishing a special planning committee for agriculture as an integral part of the central planning organization. There is considerable advantage in establishing a direct relationship between the central planning organization and the cabinet or the head of the government.

In countries with a federal type of government, where agriculture is a provincial responsibility, the provincial departments play a prominent part in plan formulation, and co-ordination is attempted at that level by making one administrative head responsible for all developmental activities pertaining to the rural sector. With some exceptions, the developmental machinery at the district and lower levels does not yet play a sufficiently important role in this process.

It is of basic importance to associate non-governmental opinion and organizations with plan formulation, with a view to mobilizing the knowledge and experience available and to promoting public acceptance of the plan. In some countries, the personnel of universities and research institutes are assigned a role in specialized aspects of planning, of constructive criticism of draft plans, and of research on agricultural development and development planning.

It is important to secure the acceptance of development programmes by the rural community because agricultural production can only be increased with the co-operation of millions of small farmers. A number of countries have taken steps to ascertain the needs of the rural communities by associating them or their representatives in plan formulation and in discussion of programmes at the local levels. Although the high percentage of illiteracy limits the scope of such participation in development programming, efforts in this direction can nevertheless help to identify locally important projects and solve local problems.

In addition to the problems inherent in agriculture such as dependence on weather conditions, an important difficulty widely encountered in formulating development plans is the lack of adequate and reliable statistical data. In many cases, statistics of crop areas, production and livestock leave scope for improvement in coverage and accuracy, while only meagre data are available on economic aspects such as farmers' income, consumption and expenditure patterns, savings and investment, and costs of production. All this calls for greater efforts to improve the collection and analysis of agricultural statistics and economic data, where necessary by undertaking special surveys. In some cases, special units may need to be created in the appropriate ministries to organize the available agricultural economic data and prepare the background statistics and statements required in agricultural planning.

While the ministries of agriculture have assumed substantial responsibilities for development programming, the administrative arrangements for this task are often of an *ad hoc* nature and are not always backed by experts trained in such subjects as agricultural economics. This is due partly to the fact that development programming is looked upon as an emergency function and not as something which has come to stay, and partly to the lack of personnel trained in planning. It is therefore necessary to draw more heavily on international assistance in securing short-term experts and especially also in training personnel.

A problem deserving special notice is the limitation imposed by lack of scientific knowledge and technical information. For instance, without adequate information about the fertilizer needs of different soils and crops, it may be both difficult and risky to formulate programmes for the increased use of fertilizers. In the same way, the lack of improved varieties of planting material, whose superiority has been demonstrated under local conditions, may handicap programmes of yield improvement. While research work must naturally be accelerated, it is important, in formulating plans, to bear in mind these limitations.

Implementation of plan and lags in implementation

For the implementation of development programmes, many of the countries are utilizing the existing administrative arrangements at various levels, though in a few cases new semi-autonomous organizations, such as development corporations or authorities, have been created to deal with specified developmental activities. One comparatively recent experiment in some countries is that of integrating developmental activities at the district and lower levels and of utilizing one agent for all such work at village level.

The experience of many countries in the region shows that implementation frequently lags behind the programmes. A major factor causing delay is the shortage of trained administrative and technical personnel. This problem is so basic that it is desirable for development planning agencies to arrange for a detailed stocktaking of the factors affecting the supply of, and demand for, trained agricultural personnel in relation to the needs and timing of development. Such a survey might usefully include a review of the terms and conditions of employment of qualified staff in agricultural service in comparison with those in other sectors. In the short run, staff shortages may be eased by the increased use of technical assistance from international and bilateral sources within the framework of the national agricultural development plan. Implementation is sometimes held up by delays in the preparation of details or blueprints of projects, which in turn is frequently due to shortage of personnel.

Long delays in securing financial approval for development projects are also not infrequent, possibly because, while governments have recently assumed increased responsibilities for development work, governmental procedures, especially in regard to district activities, are still largely geared to the maintenance of law and order. A related problem is that of synchronizing progress on parts of a project which are interdependent but are the responsibilities of different departments. One method being adopted to get round this difficulty is to convene *ad hoc* inter-departmental meetings, but in some cases the central planning organizations are taking over the task of co-ordination. Complexities of import control procedures, too, may give rise to delays in obtaining agricultural requisites and equipment. In addition, shortage of foreign exchange may check expansion by curtailing the import of fertilizers or other agricultural requisites.

Then there is the relatively lower profitability of investments in agriculture, which discourages the use of private capital in that field. This would seem to indicate the need for governments to increase direct investment in agriculture or promote the profitability of agriculture through appropriate measures including incentives to invest at the farm level.

Agricultural development planning, as indicated earlier, is subject to many limitations and should be operated flexibly within a broad framework. Periodic readjustments, and hence reviews, may be necessary in the light of experience. To this end, it is essential not only to know the progress being achieved but also to undertake selective and intensive studies with a view to ascertaining the reasons for lags in implementation and to suggesting ways and means of dealing with these or to highlighting successful experiences. Evaluation, thus conceived, is a co-operative task involving the bringing together of administrators and specialists in different fields.

Demand Outlook and Planning for Agriculture

Planning for the expansion of agriculture along the most economic lines calls for forward estimates of the effective demand for the principal agricultural products, both in domestic and in international markets. These estimates can also be of value in achieving a balance between the growth of industry and that of agriculture.

Although it is often possible, if adequate background statistics are available, to make reasonably accurate estimates of domestic demand and supply for important foodstuffs for periods up to one year, projections for longer periods are liable to large margins of error. This is particularly the case for forward estimates of foreign markets.

However, even imperfect indications of future trends are of value in the formulation of economic development plans and policies for agriculture. Indeed, they are essential for building up a comprehensive picture of the whole economy. These indications can also be of assistance in giving some advance notice of "land mines" on the road of economic development, such as supply shortages, inflationary pressures or the emergence of surplus situations. Difficulties in forecasting have in the past been one factor necessitating frequent and extensive revision of development plans.

Consequently, even the dim light cast by forward estimates made with present techniques is of value. The Working Party emphasized that, to ensure a better appreciation of demand outlook, efforts should be made to improve both the coverage and the quality of statistical information available, and to develop and refine the techniques for evaluating the demand outlook for agricultural commodities in both domestic and international markets.

The demand for foodstuffs for domestic consumption

In evaluations of the demand outlook of foodstuffs for domestic consumption, the most important factors influencing effective demand are population trends and changes in income per person. Not only changes in total numbers, but also changes in the composition of the population with respect to e.g. age, sex, occupation, rural-urban ratio, influence effective demand.

Changes in income per person are especially important in Asia, where most of the family income is spent on food. The future consumption pattern will also be conditioned by income distribution and by consumption trends, including the income and price elasticities of the different commodities. Changes in available supplies, with consequent effects on the relative price levels of different commodities, and of foodstuffs generally in relation to non-food products, may also play a part. So, too, may changes in consumer preferences arising from e.g. nutrition education. All these factors constantly interact.

Most countries in the ECAFE region are now making forward estimates of the domestic demand for foodstuffs, taking into consideration the growth of population, and often some of the other factors noted above. In view of the uncertainties in appraising the future outlook and of the extensive statistics needed for elaborate forward estimates, some countries limit themselves to estimating supply balances for the most important foodstuffs for the coming year. Such forecasts have been found to be of value in planning food supplies in the short run.

Other countries also make projections of demand for longer periods, taking account of such features as production possibilities, population trends, nutritional goals and the effects of changes in income. Such longer-range projections are of course liable to wide margins of error because of, among other things,

(*a*) Difficulties in projecting the rate of growth of the economy and of incomes, especially for those countries in which fluctuating export proceeds are an important component of the national income;

(*b*) Incompleteness or weakness of the basic statistics in some countries;

(*c*) Variations in production due to natural conditions;

(*d*) Lack of precision of the economic tools available or in use for such projections. For example, it may not be possible to make adequate allowance for the effects of shifts in income distribution, occupation structure, rural-urban population ratio, the consumption behaviour of the large subsistence sectors of many economies or consumer preferences for differing qualities of certain commodities sometimes treated, for projection purposes, as homogeneous (for instance, the preference for domestic over imported rice in Japan).

Certain conceptual problems also cause difficulties, such as the application to projections over time of income elasticities based on "static" cross-section data or the dynamic interaction among the different variables which are usually treated by present techniques as independent.

Because of these inevitable difficulties, longer-term projections should always be accepted with reserve, and interpreted and applied with common sense, and with a full realization of their limitations. Nevertheless, within the framework of the basic assumptions, such projections can serve as rough indicators of the direction and magnitude of the future course of effective demand for foodstuffs. They should be regarded as such rather than as forecasts.

In formulating plans and policies for agriculture, many countries have postulated desirable levels of nutrition. However, it is generally recognized that these levels can serve only as very long-term goals. It would be unrealistic to adopt these levels as shorter-term targets without taking full account of production possibilities, including the required investments and necessary improvements in farming methods. It would be equally unrealistic if nutritional targets were adopted without full consideration of effective demand. These considerations apply with particular force to the more expensive foods such as milk, eggs and meat.

Higher incomes appear to be the basic condition for a substantial improvement in the nutrition of the region. However, even now, nutrition education can play an important complementary role by helping people realize the value of adding to their diets relatively cheap nutritious foods, such as pulses[4] and certain vegetables and fruits. Nutrition education can also help to direct into suitable channels increases in income resulting from economic development. As it is, a large part of any such increase is often spent on items of limited nutritional value. An instance of this trend is the shift from brown rice to white rice which has frequently accompanied urbanization and has led to a rise in the incidence of beriberi.

The need for strengthening the provision of basic statistics in most countries has already been noted, but it is realized that substantial improvements can be achieved only over the course of years. However, in the opinion of the Working Party, an important forward step might be taken in many countries by instituting sample household surveys of consumption and expenditure, somewhat on the lines of those already undertaken regularly in Japan and India, and on an *ad hoc* basis in some other countries. These would make it possible to determine the current food consumption pattern and would permit better appraisals of forward trends, including especially the effects of income changes.

Reserve stocks of basic foods

Reserve stocks of basic foods, if adequate and properly managed, are a form of insurance against crop failure and severe food shortages. They may also be used to smooth out fluctuations in supplies and prices due to variations in crops or to unexpected changes in the level of demand. A further use is to secure more uniform prices between different markets within a country and to reduce seasonal price variations. For example, the Working Party was informed that grain prices in southern Korea used to rise by as much as 100 per cent from just after one harvest to just before the next. This year, the use of reserve stocks reduced this variation to about 20 per cent.

Finally, reserve stocks may be used to counter the inflation resulting at times from, among other things, heavy expenditure on economic development. In this way, they contribute to the removal or attenuation of a potentially serious obstacle to the smooth and orderly implementation of plans for economic development. A number of countries in the region are already building up reserve stocks with these ends in view. If used to finance supplementary imports, a reserve of foreign exchange may be almost equally effective in relieving temporary shortages whether caused by poor crops or an upsurge of demand.

A number of members emphasized the fact that, where reserve stocks had been established with grain imported on special terms, whether for famine relief or as a precaution against scarcity or serious inflation, it would be undesirable to use them for other purposes,

[4] Cheap protein sources of vegetable origin like presscakes (made from e.g. peanuts, coco-nut, soya, sesame), which are now mostly used for other purposes, could be suitably processed to increase protein supply in the diet. Current examples include the use of coco-nut presscake in the Philippines and peanut cake in India.

such as the relief of temporary balance of payments difficulties or the reduction of prices to a level tending to discourage domestic production or imports. Failure to abide by the widely agreed FAO principles of surplus disposal might produce harmful effects in such cases.

It should be recognized that reserve stocks, with all their advantages, are expensive to maintain and difficult to administer without trading loss. The optimum size of such stocks (measured in weeks' supply) depends on many factors, including the number of harvests in the year, the magnitude of year-to-year fluctuations in yields, the percentage of the crop sold for cash and the time necessary to obtain additional imports from abroad. If used for price stabilization, the stock will inevitably show marked seasonal and year-to-year variations in size, but it is important not to let it grow beyond reasonable limits.

One or two delegation expressed the view that, from the point of view of economic development, there was a grave danger of the existence of large stocks of food and industrial raw materials adversely affecting, directly or indirectly, the international terms of trade for these commodities. They considered that the statistical evidence showed that even the current relationship of prices received for agricultural products (with exceptions such as wool) to prices paid for capital or manufactured goods was not favourable and that no measures having a further adverse effect should be adopted. An additional factor which, in their view, should be taken fully into consideration was that, in the absence of careful administration, the knowledge that large reserves or surplus stocks were available and might be liberated for consumption could create uncertainty in the minds of producers of the commodities concerned, with the result that they would not be disposed to increase the volume of production in the countries of the region.

These delegations believe that, in the longer run, either of such adverse trends could increase rather than decrease the dependence of the countries on outside direct assistance in the form of grants, gifts, loans, etc. It was, in their opinion, through the development of trade both within and without the region, on favourable or equitable terms of trade, that a reduction in such dependence could finally be brought about.

Demand for industrial raw materials of agricultural origin

Estimation of domestic industrial demand for raw materials of agricultural origin, if based on the estimated demand for finished industrial products, will serve to secure better co-ordination between agricultural and industrial development planning. The establishment of new industries appears to be sometimes induced by an abundant domestic supply of raw materials, notably fibres, but in such cases there will of course be important repercussions on exports of raw materials and on imports of the corresponding finished goods.

The establishment of new industries may also stimulate the introduction or expansion of certain agricultural raw materials, such as sugar in Burma and Thailand, jute in Burma and China (Taiwan). Self-sufficiency, rather than the export of the processed commodities, is generally taken as the objective in these instances, which often constitute a step towards the diversification of agriculture.

Data for estimating industrial demand for raw materials may be based on requirements as reported by industries. However, where much of the manufactured output is for export, forecasts of raw material needs present a particularly difficult problem.

Factors to be taken into account in assessing prospects of agricultural exports

Agricultural exports are the largest source of foreign exchange in the region and the financial mainstay of the development plans of several countries. Net exports have not, however, regained their pre-war level and this has been a factor limiting the rate of economic development. For food (excluding beverages) the region is now a net importer, though before the war it was a substantial exporter. For all agricultural products, food and non-food combined, it remains a net exporter, though at a much lower level than in 1934-38.[5]

In assessments of prospects for agricultural exports for planning purposes, both long-term trends and short-term fluctuations have to be taken into account. Long-term trends are particularly important for tree crops and for other commodities for which the level and pattern of production cannot be quickly changed. Two important factors influencing the trade of the region have been the development of synthetic substitutes for certain raw materials, and the growing trend in many importing countries towards greater agricultural self-sufficiency. Further studies of long-term trends of demand for such commodities, e.g. rubber, taking into account relative production cost etc. of natural and synthetic products, would be very useful.

In actual planning, short-term prospects and fluctuations are often more significant than long-term trends. There is a need for more information and for improved methods of forecasting on this aspect, for instance, on the recent marked fluctuation in prices of tea. Because world trade is now so highly geared that economic changes in one country often have important effects on the demand in others, any assessment of export prospects must cover a wide range of both importing and exporting countries.

Several members of the Working Party expressed their conviction that an expansion of trade generally was essential to the economic expansion of countries of the ECAFE region and regretted that normal trade patterns continued to be disrupted by the effects of policies of agricultural protectionism in many countries, and by other policies which adversely affected international trade in foodstuffs and agricultural raw materials. These policies not only restricted trade by promoting self-sufficiency at a high economic cost but sometimes resulted in embarrassing surpluses for which markets were difficult to find without displacing commercial trade in some measure. Such policies were considered to be adversely affecting the terms of trade for many agricultural products.

[5] Food and Agriculture Organization of the United Nations, *The State of Food and Agriculture, 1956* (Rome, 1956).

A number of members of the Working Party also expressed concern at the possible effect of the European Common Market on the trade of countries of the region, as well as on the inflow of foreign capital.

There was general agreement that, basically, the principle of comparative advantage should determine agricultural export and import policies and plans. It was recognized, however, that in practice important qualifications must be made to take account not only of market prospects, but also of such factors as the special position of "infant industries" and newly developing countries, unemployment and balance of payments difficulties.

The determination of export targets must therefore be largely a matter of informed judgment. In making their assessments for individual commodities, the countries of the region base themselves both on studies of market prospects and on the best estimates of those experienced in the trade. In the short run, the exportable supply available is, of course, often a determining factor, though this is sometimes difficult to forecast in view of the limited reliability of statistics of production and domestic consumption. Over-all export targets may represent the sum of the various commodity assessments, but are sometimes also influenced by estimates of the country's requirements of foreign exchange for imports.

Import programmes

The factors taken into account in assessing both import and total domestic requirements for a commodity are generally the same. These are naturally adjusted for variations in domestic production, the need to raise or reduce the level of stocks and, where necessary, for such special factors as limitations of foreign exchange.

As noted earlier, agricultural imports have caused a heavy drain on the foreign exchange reserves of many countries since the war, and the reduction of imports by increasing domestic production is a major objective of agricultural planning in a number of countries in the region. This does not necessarily mean that these countries are endeavouring to replace the whole of their imports of a commodity by domestic supplies. In many instances, there may be an optimum level of domestic production, above which it is more economical to import the balance of the country's requirements.

While the necessity was recognized of ensuring a reasonable rate of growth in the supply of consumer goods in order to promote an improvement in living standards, attention was drawn to the danger of importing non-essential commodities beyond the means of countries of the region and stress was laid on the need to ensure the most effective use of foreign exchange.

International consultations

Conflicting objectives as between exporting and importing countries, especially on export earning and import saving, often lead to real differences in countries' policies and to apparent discrepancies between export targets and import intentions. This applies particularly to commodities such as rice, where the bulk of the trade is intra-regional. Inelasticities of production and the difficulty of finding alternative crops often limit the extent to which production policies can be adjusted to take account of such factors. Nevertheless, there is scope for a fuller exchange between countries of information on export objectives and import intentions, particularly on probable future trends and developments. Well-prepared international consultations, on either a bilateral or multilateral basis, may therefore be useful from time to time.

There is already a good deal of international machinery for such consultations. On a commodity basis, there are long-established study groups for some commodities, including rubber and sugar. More recently, the FAO Committee on Commodity Problems has established study groups for rice, grains, coco-nut products and cocoa, and others may be established if the need arises. On a more general basis, the ECAFE Committee on Trade offers opportunities for international consultation, while agricultural export and import programmes and policies are usually reviewed at the biennial Regional Conferences of FAO. Full advantage should be taken of the existing machinery in order to avoid disparities between countries' agricultural development plans and minimize the consequent danger of either surpluses or shortages. In any case, the rapid changes in agricultural export markets call for frequent reviews of agricultural export and import programmes and policies.

In view of the importance to the region of expanding earnings from agricultural exports, and of reducing the sharp fluctuations in prices and returns which seriously hamper orderly economic development, some members of the Working Party proposed that the possibility of additional international commodity agreements should be further explored as occasion offered. Others proposed that consideration should be given to the prospects of expanding agricultural trade, both within and without the region, by long-term contracts, including possible mutual arrangements between countries. The more this can be done within a multilateral framework, the better.

Criteria and Techniques for Selection of best Technical Means for Agricultural Expansion

General observations on possibilities and relative advantages of various technical means

The Working Party recognized that there was scope for a wide range of technical means to achieve agricultural expansion. In a development programme, no single method can be considered in isolation. It may be that in a given set of circumstances one approach is more important than others but it must be associated with other related activities to form an integrated whole.

The particular means for expansion selected depends on the precise ends and objectives in view. It may be, for instance, that the aim is an increase in total agricultural production, in productivity per man, in employment or in all of these. At present, most of the countries of the region are placing the main emphasis on raising total agricultural production through increased yield per acre, but this objective is sometimes coupled with that of increasing employment in rural areas through such means as the development of new or abandoned land and crop diversification.

Any technical means selected must be capable of being implemented technically, economically and socially. Emphasis is thus placed on such factors as a sound survey of physical resources, availability of finance, adequacy of government services including administration, personnel, research and statistics, and extension service, and on institutional factors such as land tenure, taxation and credit systems, forecasts of market prospects, systems of price supports and the aptitude of farmers to adopt advanced techniques for increased production. In this connexion, it may be noted that, in Burma, land use survey and classification of a general nature have been conducted throughout the country by means of aerial photographs and topographical maps in order to determine the agricultural potentialities of the country.

Relative profitability, both from the point of view of the national income and of individual farmers, must be the main criterion in determining the selection of any particular means of expansion, but social welfare aspects should be taken into consideration. Further discussion on the question of techniques of economic appraisal of development projects is presented below.

The extent to which varying circumstances alter the basis of selection of means of expansion is well illustrated from experience within the region. In China (Taiwan), Indonesia, southern Korea and the Philippines, for example, top priority is being given to measures for increasing crop yield per acre. This is either because of the scarcity of new land coupled with high population pressure, or because low yields per acre give scope for much more intensive production. This is probably more economic than opening up new land which involves heavy investment and more time before results are achieved. On the other hand, the reclamation of large area of formerly cultivated paddy lands still lying fallow in Lower Burma offers the cheapest and most productive use of investment resources in that country. In, for example, Ceylon, India and Pakistan, both methods are being extensively followed. In Japan, more intensive cultivation of existing farms in some limited areas gives a smaller return than land reclamation, but, on the whole, the potential returns on increasing yield per acre are greater than those from reclamation. In all these cases, complementary measures are being taken to increase total production. In particular, efforts are being made to diversify production, to increase productivity per acre and per man, to minimize fluctuations in production and to stabilize farmers' incomes.

Fishery development

In the countries of the region, the development of fisheries, and particularly of inland fish culture, is directly related to the development of agriculture and plays a significant role in diversification programmes. With the primary objective of raising the nutritional level of the people, simple programmes aimed at the introduction or development of fish farming at the subsistence level are being implemented and, especially in countries such as Indonesia, Japan, the Philippines and China (Taiwan), supplemented by active extension services which promote the commercial production of suitable species of fish. This commercial production may seek to meet direct consumer demand or the demand for fry or fingerlings to be cultivated in farm ponds or as supplementary or alternative crops associated with rice production. In all countries of the region, fish culture is becoming more and more closely integrated with other agricultural practices, and it is achieving official recognition in the allocation of water supplies in irrigated areas, and in producer finance plans for example, in Pakistan and Indonesia.

Techniques for economic appraisal of agricultural projects

In many countries, an analysis of the economic implications of specific development projects in the field of agriculture is considered desirable in order to improve the criteria for selecting the best technical means for agricultural development. A particular technique of economic appraisal, the so-called cost and benefit method, has been developed in recent years, especially in the United States, in connexion with river basin projects. Other countries are becoming interested in this technique and are applying it, not only to river development projects for irrigation and power, but also to other projects which can be easily delimited.

Main features of the cost and benefit technique

According to this technique, the benefits and costs of a specific project are evaluated from the point of view of the community as a whole. In order to determine whether a specific project is economically advisable, it is necessary to identify and measure benefits and costs, to translate benefits and costs on to a common time basis and to compute the benefit-cost ratio and appraise the benefit-cost relationship, including intangibles.

Project costs are the value of goods and services used for the establishment, maintenance and operation of the project. Associated costs are the value of goods and services needed to make the immediate products or services of the project available for use or sale. Indirect or secondary costs are the value of any goods and services (other than project costs and associated costs) used as a result of the project. These include, for instance, the costs of processing the immediate products of the project. Intangible costs are those which cannot be estimated in monetary terms.

Direct or primary benefits consist of the value of immediate goods and services resulting from the project. Indirect or secondary benefits are the value of increases in useful goods and services which accrue in activities stemming from the processing of project output once the project is in operation or which are induced by incremental money incomes arising from increased employment during project construction. Intangible benefits are those which cannot be evaluated in monetary terms.[6]

Once cost and benefits have been evaluated and translated on to a common time basis, a decision can be reached as to the optimum size of the project (which is given by the maximum net benefits), and other projects can be compared with it on the basis of the benefit-cost ratios.

[6] More details on the cost and benefit technique are available in United Nations, *Multiple-Purpose River Basin Development; Part I, Manual of River Basin Planning* (sales number: 1955. II.F.1), chapter III.

Economic analysis as compared with other types of analyses

The cost and benefit technique differs from (*a*) the financial analysis, which consists of an appraisal of the financial outlay needed to establish and run the project and of the financial returns likely to accrue to the financing agency, and from (*b*) the private entrepreneurs' appraisal which, although also carried out in terms of expenditures and returns, views the matter from the angle of the individual farmer.

The Working Party emphasized that an appraisal of farmers' prospective expenditure and income together with a general financial appraisal of the project was an essential prerequisite of any economic appraisal.

Application of this technique in the countries of the region

Papers submitted to the Working Party show that this technique of economic appraisal is being applied in some countries of the region. In China (Taiwan), for instance, this technique has been used in assessing the economic feasibility of the Shihmen reservoir project. The height of the dam in this project was determined on the basis of the net benefits which would accrue from different types of permanent structure, and of the costs of building and operating them. The optimum size of the project, namely the height of the dam, was arrived at by finding the point of maximum net benefits.

Similarly, the cost and benefit analysis is used in Japan for large-scale irrigation and drainage projects financed by the Government and administered by local authorities.

Other countries, too, are adopting an economic evaluation of agricultural projects. In Pakistan, for example, a questionnaire has been drawn up asking the various administrative departments concerned to provide extensive information, including the data necessary for economic appraisal. An over-all appreciation of the project's implications, economic and otherwise, is eventually prepared by the Planning Board. In Ceylon, no cost and benefit analysis of the type under consideration has been applied as yet, but initial steps have recently been taken to adopt these techniques, suitably adapted in the light of local conditions.

The Working Party also discussed the shortcomings and limitations of the cost and benefit technique, especially in its application to the countries of the region, and the modifications which appear to be necessary.

Shortcomings and limitations of the cost and benefit technique

This technique has a number of shortcomings. As in many other fields, the occasional inadequacy and unreliability of statistical data limit the scope and validity of an economic appraisal. It is therefore essential to secure a general improvement of basic statistics.

Computation of benefits and of maintenance-and-operation costs requires the projection into the future of the price level of goods and factors of production. The Working Party expressed concern as to the reliability of such projections. The prices to be considered for the computation also raised difficulties. It is, for instance, not feasible to use market prices when they are altered by subsidies or other policy measures. Inaccurate price projections can substantially distort benefit and cost calculations.

It is important to distinguish between real and monetary costs since real costs are lower if unused land and unemployed man-power are utilized, as may be the case in many countries of the region. This distinction, however, though relevant, is difficult to apply in practice.

The Working Party noted the recent tendency to exclude secondary benefits and costs from economic appraisals, but it considered this practice inappropriate to the countries of the region. Secondary benefits of a specific development project may be as important as direct or primary benefits, and every effort should be made to take them fully into account. However, it is not always possible to do so.

The cost and benefit method cannot be applied to all types of agricultural development project. Individual small projects for agricultural improvements do not lend themselves to this type of analysis, though, collectively, they are important for agricultural and economic development. Appropriate techniques of appraisal need to be developed for handling such cases.

Insufficient attention is sometimes paid to the probable reaction of farmers. In under-developed areas especially, the farmer may not always be able or willing to use the new facilities as efficiently as is assumed in the analysis.

Need for broadening the scope of project appraisal

It appeared to many members of the Working Party that current practices of economic appraisal were too limited in their scope and that other effects than that on national income should be taken into account. Since to take one example, severe balance of payments difficulties are experienced in many countries of the region, preference might be given to those projects which, other things being equal, may effect a net saving in, or addition to, foreign exchange. Again, more desirable patterns of income distribution can be achieved with certain projects as compared to others. An appraisal of these changes is necessary.

When idle manpower is abundant, the employment effect of a specific development project should also be one of the criteria for project selection.

The Working Party discussed several other effects of development projects in agriculture which can hardly be measured in monetary terms but may nevertheless be very relevant. In particular, emphasis was placed on social welfare. Project appraisal should therefore provide planning authorities with qualitative assessments of these effects.

In spite of these shortcomings and limitations of the cost and benefit technique of economic appraisal, it would be desirable to adapt this method in the light of local conditions. On balance, however, the technique can only supply a partial answer to the problem of priorities in agricultural planning.

Allocation of Resources for Investment in Agricultural and Non-Agricultural Development

Mobilizing domestic savings in rural areas

In considering the broader aspect of savings and investment and the inter-sectoral allocation of resources, the Working Party discussed certain important factors in general economic as well as in agricultural development. The rate of saving was noted as being very low in most countries of the ECAFE region, especially in rural areas. This fact, which reflected the low per capita productivity and income, was aggravated in many countries by a highly unequal distribution of income in agricultural society and by a certain bias towards non-essential consumption in the income-use pattern of the higher income classes. These social aspects merit special attention in any consideration of measures designed to raise the rate of saving.

Little is known about the saving potentialities of farm households. Farm surveys are useful in giving some indication of the extent of this resource. However, the approach based on monetary income and expenditure might give a distorted picture of farmers' savings and investment in certain social environments. In such cases, it would be desirable to try to assess the size of actual investments by means of the physical acquisition or the production of producer goods, or to use a combination of both the monetary and the physical approaches.

It was generally recognized that the universally prevailing shortage of credit facilities was a limiting factor in mobilizing actual and potential savings for the purpose of agricultural development. Some countries of the region are at present making efforts, with varying success, to widen this bottleneck by means of government bonds, private savings banks, credit co-operative societies and so on. Given the present social background of the agricultural societies in the region, the introduction of certain modern credit institutions would unfortunately seem to be encountering great difficulties in general. Farmers' organizations in the form of co-operatives hold out greater hopes of success. As indicated in section VI below, special attention should be given to the improvement of these institutional arrangements and to their adaptation to the social and economic environment.

In the face of the extremely unequal distribution of income and of the differences in the consumption behaviour of the various income groups in the rural population, it was considered desirable to tax higher agricultural incomes rather heavily. This would represent a very effective means of mobilizing agricultural surplus for the purpose of public investment. In land reform schemes, it would still be possible to draw on voluntary investment by the farmers, although a high propensity to consume might cut down the total amount of savings. Care should be taken not to make taxation on farmers' income so severe as to curtail the incentive for investment.

Mobilizing rural surplus labour for agricultural capital formation

It was emphasized by the Working Party that there was a considerable body of surplus labour in rural areas of the region. Labour might be under-employed either in the seasonal or in the structural sense. In the latter case, "disguised" unemployment would be included. Some part of the actual labour force could be withdrawn from the agricultural sector without reducing agricultural output appreciably even if there was no change in technique. The concept, however, needed further clarification. It would be of help in arriving at policy decisions if, by means of field surveys, the amount, the fitness for work and the skills of labour actually available could be more precisely assessed. Moreover, in the opinion of the Working Party, there were substantial possibilities of utilizing this surplus labour for the purpose of capital formation.

Projects with this objective might be carried out on an individual, government or co-operative basis. If the latter method was adopted, special emphasis should be laid on community development schemes which were reported to be successful in several countries of the region. The attention of the Working Party was also drawn to the experience of co-operative farming in mainland China. Community development operations mentioned at the Working Party's deliberations included such different activities as irrigation, reforestation, highway construction and storage facilities—mostly labour-intensive operations in which farmers' labour was utilized, while working capital was or could be provided by public bodies. The nature of the capital thus formed would, in most cases, be confined to social overhead capital. The shortage of skills, both managerial and operational, was mentioned as a limiting factor in schemes aimed at mobilizing surplus labour for agricultural investment. In regard to seasonal under-employment, it would be helpful if cottage industries were encouraged in rural areas and opportunities for part-time work were created.

Public investment in agriculture

It was the consensus of the Working Party that public investment was likely to play a much greater role in the ECAFE region than in many other parts of the world apart from those with centrally planned economies. In this connexion, taxation should be noted as an important means of mobilizing small savings in rural areas for productive purposes. In most cases, government investment would be directed in the main to social overhead capital, such as transportation. Attention should also be paid to improvements in technology which could be introduced and disseminated by the government through, among others, experiment stations, demonstration farms and extension services.

As to the most desirable types of public investment, direct government investment, whether central or local, might be effective in such large-scale operations as land reclamation. For other purposes, and especially where private capital showed a certain degree of vigour, private or joint public-private corporations could be successfully established. In most countries of the region, as the Working Party recognized, subsidies out of public funds loomed large in government economic measures. In some countries, however, there was a gradual shift from direct subsidies to loans or credit. In this connexion, most members of the Working Party agreed that governments should not suppress private initiative but help individual farmers to shoulder responsibility.

External financing

With regard to the external aspects of financing economic development, some members of the Working Party feared that the private capital balance of some countries of the region showed a net outflow, although the statistical evidence was at present incomplete and inconclusive. In view of the generally admitted desirability of securing long-term external funds for the economic development of the countries of the region, attention was drawn to the need for developing various means of attracting foreign capital for this purpose. The recent inauguration of the International Finance Corporation to help promote the international flow of private capital was regarded as a hopeful sign, although it was hardly expected that a large volume of capital from this source would flow into the agricultural sector. Foreign capital could have the advantage of bringing new and beneficial technology with it. Unfortunately, lack of local managerial skills tended to limit the effective use of these funds. Reference was also made to the experience of some countries in elaborating a selective policy in dealing with offers of foreign capital. From the point of view of the recipient countries, a classification of foreign investment into several categories, according to the degree of new short-term and long-term benefits accruing to the recipient countries, might provide the basis for such a policy.

The deliberations of the Working Party on movements of public foreign capital were mainly confined to the disposal of surplus agricultural products under schemes of external aid. These operations might provide part of the domestic capital for various kinds of labour-intensive economic development in certain countries. On the other hand, the Working Party considered that, in the long run, these disposal schemes were likely to have negative effects on domestic production and on the pattern of normal trade if they were not administered carefully.[7]

Much as foreign capital and external aid were required for economic development, some members of the Working Party stressed the fear that the countries of the region could not continue to pin their hopes on grants, loans and investments alone, and urged that trade expansion also provided a way out. In this connexion, the problem of agricultural protectionism is important. This matter was discussed above on page 7. The problems of foreign capital and trade in relation to economic development and planning require a more intensive study than could be provided at this meeting.

Criteria and techniques for resource allocation

In the allocation of scarce resources, the utmost care, in the opinion of the Working Party, should be taken by countries of the region to ensure the optimum output consistent with the over-all objective of economic development. As stated above, the concept of balanced growth, which was one of the predominant ideas of the Working Party, presupposes industrialization. Only the adequate growth of manufacturing industry and the underlying or associated social capital can provide a sound basis for agricultural expansion. The allocation of investment between sectors and projects will also, in many cases, be determined by over-all policy considerations, such as the wish to achieve self-sufficiency in the long run or balance of payments objectives in the short run, diversification in the interest of greater stability, maximum utilization of domestic labour as well as domestic raw materials, the social impact of the pattern of economic structure adopted, including its effect on income distribution, and so on.

In addition to policy considerations, a series of technical criteria for resources allocation and the determination of investment priorities are being applied in some countries of the region. Having noted the incomplete nature of the cost and benefit criterion for the selection of projects within the agricultural sector, the Working Party recognized the appropriateness, in principle, of "accounting prices" as a corrective measure for cases in which the market mechanism was found deficient. Social and indirect costs and returns had clearly to be taken into account.

The capital-output ratio, being the reverse of capital productivity, could be used with success in assessing capital requirements, project by project, or sector by sector. Yet, as a criterion for investment priorities, that ratio would be subject to severe limitations. For example, large variations in the ratio would occur in the short run, especially in agriculture. Several members stressed the need to avoid the assumption that a low capital-output ratio would necessarily be the most effective means of promoting economic development. Investment with a high capital-output ratio might be more favourable to the rate of economic growth, all the more so if future re-investment out of the returns were taken into account.

The method of resources budgeting and commodity balance has been effectively used in several countries of the region in assessing the resource-input requirements for particular projects. This is really a rudimentary way of establishing relationships between particular inputs and outputs for each project or industry separately. One particular version is the so-called "standard unit requirements" method. It was, however, recognized that the extension of the coverage would logically lead to a more comprehensive model of inter-industrial relationships—that is, input-output analysis.

In fact, that analysis has been tentatively attempted in some countries of the region. In one case (that of Japan) it was specifically applied to the agricultural sector. The Working Party discussed the practicability and usefulness of this technique for allocating resources. The present stage of statistical knowledge in the region seemed, in its view, to allow of only a very tentative use of an input-output table for the sole purpose of testing the mutual consistency of several targets in planning. There was still a long way to go before the technique could serve as a criterion for actual investment planning. Reference was also made to certain limitations to which the application of input-output analysis, especially to agriculture, was subject, in particular the heterogeneous composition of activities and the pronounced variations in technonogical coefficients in agriculture.

[7] Food and Agriculture Organization of the United Nations, *Uses of Agricultural Surpluses to Finance Economic Development in Underdeveloped Countries, A Pilot Study in India* (Rome, 1955).

The conclusion reached by the Working Party was that each of these more or less refined tools and techniques of analysis might prove highly useful for some particular purpose, and that it would therefore be best to combine them when applying them in practice. While in some cases simpler methods, such as cost and benefit analysis and criteria of profitability, might be applied with more success, attempts to improve criteria and techniques of resource allocation for the purpose of economic planning should eventually be highly rewarding.

Incentives and Institutional Factors

In addition to undertaking direct measures for stepping up agricultural production, the governments of the countries in the ECAFE region are providing economic incentives with a view to assuring to cultivators a reward for increased output or to encouraging production in the desired directions. They are also pormoting institutional changes in order to stimulate production.

Economical incentives

Economic incentives designed to maintain or improve the profitability of agriculture include the maintenance or improvement of returns to the farmer through appropriate price policies and the subsidization of factors of production.

The techniques being used are broadly those of a guaranteed minimum price, a fixed price or a guaranteed price range. Agricultural price support measures of one kind or another are in operation in most countries of the region.

One of the difficulties in implementing price policies is that of determining a fair price to the producer in view of the differences in costs of production on farms of different size in the same region, as also because of regional variations. It is difficult even to calculate production costs, particularly when complicated by the allocation of costs in the case of conjoint products. The organizational arrangements needed for the implementation of these policies and the heavy financial costs frequently entailed may also cause difficulties. In some countries, these costs impose a serious burden on the economy. Another, and perhaps a more important, difficulty is that price policies tend to acquire rigidity owing to frequent non-economic influences, and as a result, the financial burden on the governments concerned tends to increase. Moreover, over-generous price incentives can also result in excessive domestic supplies which, in their turn, create other problems.

As regards the effectiveness of price policies, it was noted that there was no conclusive statistical evidence to support the view that high prices resulted in higher output in all cases. The question was an open one, partly because it was difficult to isolate the effect of price incentives from other factors which might be operating at the same time with equal or greater force. In some countries, there are difficulties in ensuring that incentive prices reach or benefit the actual cultivator. Two instances of over-all increases in production associated with incentive prices may be mentioned, namely, increases in rice production in Japan and in output of tobacco in the Philippines. However, in Ceylon the production of rice in certain areas has remained practically stationary in the last few years in spite of the very high guaranteed farm price.

While difficulties associated with the use of price policies for stimulating production (or for influencing cropping patterns) deserve serious consideration, there was general agreement regarding the need to maintain or improve the profitability of agriculture, particularly by measures such as cheap credit or improved seed intended to reduce the costs of production. In this context, note was taken of the practice being followed in a number of countries of supplying agricultural requisites at cheap rates. The use of subsidies raises, among others, the problems of ensuring fair and timely distribution and effective utilization. The eventual abolition of subsidies is a harder nut to crack. However, instances exist in the countries of the region of the successful replacement of subsidies by better credit facilities.

As in the case of price policies, experiences in regard to the effectiveness of subsidies differ as between countries. Two general conclusions emerged in the course of discussions at the Working Party. One of these was that, while economic incentives have a distinct role to play in programmes of agricultural development, the problems associated with the different methods of offering these incentives need careful consideration. In this context, the Working Party noted the proposal of FAO and ECAFE to organize a seminar in 1958 to consider food and agricultural price policies in the ECAFE region, and suggestions were made for extending its scope to include consideration of policies governing, for instance, agricultural taxation which influenced costs of production. The second point was that the efficiency of economic incentives might be seriously impaired unless they went hand in hand with improvements in the institutional framework of agriculture.

Institutional factors

Land tenure

Steps for the transfer of ownership of land to the cultivators have been taken by a number of countries in the ECAFE region, including Burma, China (Taiwan and mainland), India, Japan, southern Korea, Pakistan, the Philippines and southern Viet-Nam. Some of these countries have also adopted other types of agrarian reform, such as the control of rent,—China (Taiwan), for example, has reduced them to 37.5 per cent of the standard yield—the improvement of terms and conditions of leases, and the consolidation of fragmented holdings.

It was reported that the implementation of the Land Nationalization Act in Burma is providing an incentive to cultivators to expand production. In China (Taiwan), the land-to-the-tiller programme is said to have helped to increase crop production and improve farmers' living standards. In Japan, after land reform, there was an appreciable rise in farmers' investments in machinery and livestock, as well as in farm productivity. However, with the abolition of landlordism, a source of capital inflow into agriculture has been dried up. This loss has been offset by the fact that the state has come to play a more positive role in capital formation in this sector.

Reforms in the agrarian structure are of basic importance for the development of agriculture in the countries of the region, and this factor needs to be taken fully into account in the formulation of plans and programmes. But it is not sufficient merely to put the new measure on the statute book. The enforcement of existing legislation is the crucial problem in areas of intense pressure on land, owing to the illiteracy of the tenants and to their weak economic position and lack of organization. After enforcement, a third problem arises. The transfer of land ownership has not always greatly affected the internal structure of the farm units. The focus of attention therefore, at this stage, shifts to the drive to secure improvements in the size and layout of holdings, in order to facilitate the achievement of higher productivity.

Credit

An adequate supply of credit to cultivators on reasonable terms was felt to be essential if the various technical and economic measures for agricultural expansion are to become effective in raising production and agricultural incomes. However, the supply of low-interest credit is grossly inadequate in much of the ECAFE region. The greater part of the cultivator's need for credit is at present met from private sources, usually at very high rates of interest. This tends to depress the already low levels of farm income and to delay the adoption of improved farming practices requiring a monetary outlay. It was noted that land tenure reforms have sometimes aggravated this problem, especially if land reform laws limit the use of land as collateral.

Because of the nature of agriculture in much of Asia, where there is a vast number of small units with little to offer as collateral, it seems clear that action by governments will be necessary if enough credit is to be supplied on reasonable terms. The use of a network of local co-operative societies with financial support from central sources appears to be the best solution in most cases, provided that conditions of collateral are not restrictively rigid.

The successful operation of such co-operative societies raises general problems (noted below). In addition, there are instances where the type of collateral required by them means that only the larger or more prosperous farmers can obtain loans.

Marketing

The Working Party stressed the need for great improvements in the wide range of facilities and services required to promote more efficient marketing of agricultural products. These arrangements must in many cases form an integral part of programmes for agricultural expansion, in order to increase the share of the consumer price received by cultivators, to improve quality and to facilitate the introduction of new crops. It has been found, for example, that in Burma the introduction of jute necessitated the establishment of marketing facilities by the Government. In areas where this was not done, it was found that progress was slow.

The organization of co-operative societies for marketing, including, if possible, other functions such as the provision of credit, appears in many situations to be the best approach to the problem of ensuring that farmers receive better returns for their production. In addition, government action is necessary to enforce standards of weights and measures, to establish uniform quality grades and to provide market information. Improvements in basic transportation and communications will assist in alleviating local surpluses and scarcities, and investments in storage facilities will help to even out excessive seasonal price fluctuations.

Multiple-purpose co-operative societies were felt to offer a good solution to several interrelated problems (e.g. credit, processing, storage, marketing). Such co-operatives enable cultivators to pool their resources and perform more efficiently functions which are now carried out by individuals, or by commercial interests for profit; and these societies may well have social as well as economic benefits.

The development of co-operatives in Asia has often been attended by difficulties, in particular, inadequate financial resources, poor management, lack of member support, due at least in part to ignorance of co-operative principles, and to faulty co-ordination between local societies and central organizations. Consequently, some measure of government leadership, training and financial assistance appears essential for the rapid and sound establishment of co-operatives.

Agricultural taxation

Recent studies by the United Nations[8] as well as by some of the countries of the region indicate that, while the small farmers may have been taxed rather heavily, the larger owners and tenants have got off lightly. The total tax yield from agriculture in the region has often failed to keep pace with increases in farm production and prices, except in countries where land tax is collected in kind, as in China (Taiwan) and southern Korea.

In the planning of agricultural development, it is important to give careful attention to the agricultural taxation system. It is possible that in some countries the proportion of national taxation yield contributed by taxes on land and agricultural income could, on grounds of equity, be increased. In this way, the supply of domestic funds for public investment in agricultural and economic development might be augmented. On the other hand, in some countries the tax burden on cultivators is unduly high and the possibility should be fully explored of providing through the taxation system some incentives for the promotion of agricultural investment. Newly reclaimed land or fallow land brought under cultivation might be exempted from land or revenue tax for a number of years. On the other hand, higher tax rates might be levied on unutilized or unimproved lands. Some countries, such as the Philippines, provide for exemption from or the reduction of import duties on requisites for various industries from which the agricultural sector derives some benefit.

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[8] Especially, "Note on Taxation and Development of Agriculture in Under-Developed Countries with Special Reference to Asia and Far East" (E/CN.11/DPWP/L.8).

There does not seem as yet to be much experience in regard to such taxation incentives in countries of the ECAFE region, and the Working Party recommended that, where appropriate, further attention be given to this matter in connexion with plans for agricultural expansion.

Agricultural extension

Agricultural extension was repeatedly emphasized as the most effective means to bridge the gap between knowledge and practice in agriculture. It was noted that the effectiveness of extension would depend on the literacy rate of the farming population and on the availability of useful information for extension purposes. Many members of the Working Party reported on the extension methods followed in their own countries. Great emphasis was placed on the need to adopt the most effective approach to the farmer if his natural conservatism was to be overcome. An adequate level of skill among extension workers was also important. Where (as has happened in some instances) demonstration fields were not as good as those of the farmers themselves, the impression created was likely to set back the progress of the work. The Working Party welcomed the emphasis being given by FAO to extension work in the region.

Agricultural research

In order to have an effective agricultural extension service, governments must conduct research work so that improved planting material, better strains of livestock, new methods, new techniques and so forth could be evolved from time to time to meet the growing demands of an expanding agriculture. Agricultural research was likely in time to produce results worth many times its cost. Members of the Working Party stressed the fact that agricultural research should be based on local needs, and should cover even relatively simple matters such as improved farm implements and the critical examination of common farm practices, as well as the development of new and improved techniques. It was also emphasized that, as soon as new findings had been adequately tested, they should be communicated to farmers in simple language, so that they could quickly be put into practice.

Relative effectiveness of institutional programmes

The Working Party did not consider it possible to evaluate separately the influence of the various institutional methods of aiding the implementation of agricultural development programmes, or to indicate which approaches had been found most effective in their own countries. It was emphasized that all the institutional problems discussed were closely interrelated, and that the methods adopted to solve them were largely complementary. They were therefore most effective when applied in combination.

Examples of this integrated approach were cited from Japan in respect of its agricultural co-operative associations, from China (Taiwan) in respect of its farmers' associations, and from the Philippines in respect of its farmers' co-operative marketing associations. These were all organized for multiple purposes. Community development was another outstanding example.

In conclusion, the Working Party wished to stress the particular importance of human factors in extension work. If a farmer did not feel secure on his farm, or was not sure of getting a reasonable share of the harvest, he would not work hard to increase production. It was pointed out that the present lack of sufficiently trained agricultural personnel and their comparatively low status, unless remedied, would further hamper the expansion of the institutional developments discussed above.

Recommendations

The first point to be noted is that, in the nature of things, agricultural plans should not be unduly rigid. Revisions are likely to become necessary from time to time, not so much in major constructional projects (where they would be uneconomic) as in production or trade objectives and in the means adopted to implement them. Agricultural planning is thus to a large extent a continuous function which cannot be effectively worked out in detail by *ad hoc* committees whose time is stolen from their members' normal duties. Standing co-ordinating committees of leading officials may, however, be valuable in advising on problems and reviewing the situation. The Working Party recommends, therefore, that, in agricultural and other departments or ministries of countries in the ECAFE region concerned with agricultural development projects, consideration should be given to setting up small permanent planning sections which should continuously review the progress of development in their respective fields and suggest any revisions necessary. These sections should co-operate with the central planning authorities in co-ordinating the operating divisions and branches' projects into a draft over-all plan. An alternative approach would be to establish at an appropriate level a central planning section for agriculture to undertake similar duties in co-operation with all functional ministries and departments concerned.

The attention of the Working Party was repeatedly drawn to the shortage of trained and experienced personnel as a key limiting factor in the formulation and implementation of plans for agricultural development within the framework of national economic objectives. It hopes that all member governments will recognize the specialized nature of the economic planning functions and technical skills connected with a rapid and balanced advance in the agricultural sector, and institute special training courses, where required, for the personnel responsible for these functions. Since this problem is common to many countries, there is scope for international co-operation in the provision of this training.

Recognizing the need for increased foreign technical assistance in the implementation of agricultural development programmes, the Working Party reiterates the need for greatly increased numbers of qualified foreign and local personnel. In view of the limited resources of the region, it also wishes once more to emphasize the importance of foreign financial and material aid on an increasing scale in implementing agricultural development programmes.

Throughout the report, stress has been laid on the need for a wider and more solid statistical basis for planning in the countries of the region. The following aspects are of particular importance for agricultural planning, and are commended to the attention of member governments and the Conference of Asian Statisticians.

(*a*) Data to improve forward estimates of the demand for foodstuffs and other agricultural products, including especially data on population trends, national and consumer income, and food supplies. Although comparable time series are often regarded as being the most satisfactory, they obviously take some years to accumulate. Consideration should therefore be given by governments to carrying out, in both urban and rural areas, sample household surveys of expenditure on, and consumption of, foodstuffs (in relation to income or to total family expenditure) in order to provide a basis for demand projections.

(*b*) Data on the extent of under-employment in agriculture and possible means of utilizing under-employed labour in the building of social overheads, as well as data on savings and investment in the agricultural sector. Consideration should be given by governments to initiating sample surveys on farms to secure these and other basic data.

(*c*) All statistical work in agriculture should take into account the need to ensure that, for planning purposes, statistical data collected in various sectors of the national economy should as far as possible be comparable.

The Working Party also emphasizes that the fullest possible support should be given by all countries of the region to the proposals for the 1960 World Census of Agriculture which were endorsed by the Conference of Asian Statisticians.

Efforts should be made to improve the techniques of economic and agricultural programming, from the simpler methods of project appraisal to more elaborate methods of programme planning. As a first step towards developing better and more appropriate programming procedures, the Working Party hopes that FAO will, in co-operation with ECAFE, undertake a study of the various techniques of economic appraisal of agricultural development projects, including the cost and benefit method, and others which are in use in the countries of the ECAFE region.

Fluctuations in prices and in returns for agricultural exports, which largely determine the foreign exchange resources of many countries of the region, add immeasurably to the difficulties of agricultural and especially of over-all planning. The Working Party hopes that FAO can expand its analyses of the production and marketing structure for the main agricultural products, including their export prospects, and of the underlying causes of price fluctuations.

The Working Party notes that discussions regarding the European Common Market took place in the Economic and Social Council at its twenty-fourth session when the conclusion was reached that the matter should be considered by the United Nations within the framework of the annual economic reviews conducted both at United Nations Headquarters and by the regional economic commissions.

There is wide recognition in the region of the importance of institutional factors in determining the degree of active participation of farmers in accelerating the rate of agricultural development. Measures to modify the institutional framework include agrarian reforms, provision of low-cost credit, improvement of marketing facilities, modification of tax systems bearing on agriculture. The development of strong agricultural extension services is of particular importance. The attention of member governments is drawn to the desirability of developing the necessary institutional measures as rapidly as possible and of integrating them into plans for agricultural development.

The Working Party hopes that the ECAFE and FAO secretariats will continue to collect data and undertake reviews of the agricultural and general economic development plans of the countries of the region and of the progress made in their execution, and will issue such studies for the information of member governments and the general public. Should the exchange of information on development plans suggest a need for international consultation, attention is drawn to the machinery already available for this purpose in these two organizations.

As suggested at previous sessions, the Working Party agrees that its next session should be on industrialization in its relation to economic development as a whole. The ECAFE secretariat is requested to circulate to member governments at an early date a statement on the proposed scope of discussion within this field, including an informal tentative agenda for the session, and, to issue the provisional agenda as soon as possible after approval for the session is given by the Commission, taking into account the comments and suggestions received from member governments by that time.

Annex A

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[2] Participating in a consultative capacity under resolution 617 (XXII) of the Economic and Social Council dated 27 July 1956.

Annex B

List of documents

I. *Working Papers*	*Symbol*
Agenda	E/CN.11/DPWP.3/L.1 and Rev. 1
Forecasting demand for the principal agricultural commodities	E/CN.11/DPWP.3/L.2
Criteria and techniques for selection of best technical means for agricultural expansion	E/CN.11/DPWP.3/L.3 and Add. 1
Agricultural development plans of the countries of the ECAFE region	E/CN.11/DPWP.3/L.4
Incentives and institutional factors influencing the rate of agricultural development	E/CN.11/DPWP.3/L.5 and Corr. 1
Implications for agriculture of economic development, particularly industrialization	E/CN.11/DPWP.3/L.6
Allocation of resources for investment in agricultural and non-agricultural development	E/CN.11/DPWP.3/L.7 and Corr. 1
Note on taxation and development of agriculture in underdeveloped countries with special reference to Asia and the Far East	E/CN.11/DPWP.3/L.8
Fishery programmes in relation to agricultural and economic planning	E/CN.11/DPWP.3/L.9
Human and employment aspects of development in the agricultural sector (the International Labour Organisation)	DPWP.3/1
Agricultural development plan in Taiwan (China)	DPWP.3/2
Technical measures undertaken for agricultural development in Taiwan (China)	DPWP.3/3
General features of agricultural investment programme in Taiwan (China)	DPWP.3/4
Productivity effects of land reform (Japan)	DPWP.3/5
Estimation of demand for food (Japan)	DPWP.3/6 and Corr. 1
Method of estimating economic effects of land improvement (Japan)	DPWP.3/7
Agricultural education in New Zealand	DPWP.3/8
Extension services in New Zealand	DPWP.3/9
Farm management and economic investigational work undertaken by the New Zealand Department of Agriculture	DPWP.3/10
Rural credit in New Zealand	DPWP.3/11
Guaranteed or minimum price schemes for farm products in New Zealand	DPWP.3/12
Demand and supply of principal agricultural commodities of Taiwan, China	DPWP.3/13
Agricultural planning and economic development in Burma	DPWP.3/14
Programmes of agricultural and economic development of Nepal	DPWP.3/15
Annotated agenda	DPWP.3/16 and Rev. 1
A summary of the Philippine five-year agricultural development programme	DPWP.3/17
Institutional and organizational changes for the development of agriculture in the Philippines	DPWP.3/18
Planning and development of agriculture in the USSR	DPWP.3/19
Criteria and techniques in selection of new and improved tractors and machinery necessary for the development of agriculture (USSR)	DPWP.3/20
The new economic plan and the planning of agricultural sector in Japan	DPWP.3/21
Technical measures for agricultural expansion and development in the Philippines	DPWP.3/22
Criteria and techniques for selection of best technical means for agricultural expansion (USA)	DPWP.3/23
On application of the concept of capital coefficient to agricultural development planning (Japan)	DPWP.3/24
Agricultural development plans: scope and dimensions; organization and administration; difficulties encountered (Pakistan)	DPWP.3/25

II. *Background Documents*

No. 1 Report of the Expert Working Party on Agricultural Support Measures (FAO)

No. 2 Outline of the agricultural programme of the second four-year economic development plan for Taiwan 1957-1960 (China)

No. 3 Soviet agriculture (USSR)

No. 4 Rural development programme guide: organization and objectives, supporting government services (USA)

No. 5 The long-run demand for farm products (USA)

No. 6 Factors influencing the trend of food consumption (FAO)

No. 7 Co-operative business association loans (USA)

No. 8 Farmer co-operatives in the United States

No. 9 Loan programme of the farmers' home administration (USA)

No. 10 The federal land bank system (USA)

No. 11 Farm credit manual (USA)

Annex C

Agenda

1. Opening addresses
2. Election of chairman and vice-chairmen
3. Adoption of agenda
4. Implications for agriculture of economic development, particularly industrialization (secretariat introduction)
5. Agricultural development plans of the countries of the region: scope and dimensions; organization and administration; difficulties encountered
6. Forecasting demand trends for the principal agricultural commodities (influence of population, income, foreign trade, nutrition and other factors)
7. Criteria and techniques for selection of the best technical means for agricultural expansion
8. Allocation of resources for investment in agricultural and non-agricultural development
9. Incentives and institutional factors influencing the rate of agricultural expansion
10. Formulating a national agricultural plan—integration of demand forecasts, production possibilities and financial resources; implications of developments and programmes in other countries (concluding discussion)
11. Adoption of the report

Annex D

Annotated Agenda

1. Opening addresses
2. Election of chairman and vice-chairmen
3. Adoption of agenda
4. Implications for agriculture of economic development, particularly industrialization:

   Secretariat introduction only—discussion to be combined with item 5 or other items

5. Agricultural development plans of the countries of the region; scope and dimensions; organization and administration; difficulties encountered:

   Questions suggested for discussion:

   (*a*) What are the arrangements for agricultural development planning in your country? What have been the main difficulties encountered?

   (*b*) What arrangements has your country found best for:

   (*i*) securing co-ordination between the central planning bureau, the technical ministries concerned (e.g. agriculture, lands, public works) and provincial or district administrative organizations, in formulating agricultural development plans?

   (*ii*) mobilizing in plan formulation expert knowledge outside government service?

   (*iii*) facilitating participation of the farming community in formulation and implementation of development plans, so that felt needs are more satisfactorily met?

   (*iv*) checking on implementation of plans and appraising new situations?

   (*c*) Does experience in your country indicate that agricultural plans should define quantitative targets of output, consumption and export/import for main products, or that it is better to set targets only for main input items?

   (*d*) What scope is there for international co-operation in training personnel to participate in agricultural development planning at the various levels?

6. Forecasting demand trends for the principal agricultural commodities (Influence of population, income, foreign trade, nutrition and other factors):

   Questions suggested for discussion:

   (*a*) How important is it to be precise in forecasting the supplies of various foods required to meet the demand of the population during the plan period?

(*b*) At the present stage of development in ECAFE countries, what is the relative importance of the various statistical aids to precision in such forecasting, e.g. population projections, agricultural censuses, national income projections, income elasticities of demand, nutritional standards, dietary shifts, commodity budgeting? In other words, where should countries concentrate their efforts to improve the basic data required for careful forecasting of domestic demand?

(*c*) Are the actual and potential uses of national reserve stocks of basic foods sufficiently important in ECAFE countries to justify the financial and administrative problems involved? If so, what considerations should govern the size of such reserve stocks?

(*d*) What importance do you attach to better estimation of domestic industrial demand for raw materials of agricultural origin, and what methods and data are most helpful?

(*e*) (*i*) What factors should be taken into account in assessing the long-run and short-run prospects for exports of the main agricultural products, e.g. rice, rubber, pepper, cocoa, coffee, bananas, tea, sugar, vegetable oils and oil-seeds, jute, cotton? In what ways have such assessments influenced agricultural development planning in your country?

(*ii*) What factors are taken into account in your country in establishing import programmes for grains and other agricultural products?

(*iii*) Would it in your opinion be advantageous —from the standpoint of national or regional economic progress or both—if governments were to seek means of consultation for co-ordinating their study of the foreign trade implications of national agricultural plans? Account should here be taken of the effects of import policies, and trends towards national self-sufficiency, on international trade and the most economic use of national resources.

7. Criteria and techniques for selection of the best technical means for agricultural expansion:

Questions suggested for discussion:

(*a*) What are the conditions—natural, economic or social—under which the expansion of cultivated area by land development, new settlement, new irrigated areas, etc. is likely to be more advantageous than concentration on raising per acre yields on the present cultivated area? What is the experience in your country?

(*b*) What are the relative resource requirements, in your country, of the various means for improving per acre yields, e.g. farm irrigation and drainage works; fertilizers, chemical and organic; insect, disease and weed control; use of improved strains of crops and livestock; better livestock feeding, etc.? Which means have been found to give the most economical results?

(*c*) What advantages and limitations are experienced in efforts to raise output per man by improving the cropping patterns and farming system—by means such as, e.g., introducing new crops or crop rotations; introducing animal husbandry; better farm equipment and mechanization; co-operative farming; better farm management?

(*d*) What is the relative importance within the framework of agricultural planning to be attached to measures for minimizing fluctuations in output, and what measures are the most effective to achieve greater stability of agricultural output?

(*e*) What data are required to enable the most intelligent selection of technical means to be made? If data are lacking at many points what priorities in the collection of data might be recommended to countries of this region, e.g. land use surveys; soil surveys; statistics of crop acreage and yields by districts; fertilizer trials; varietal trials; farm management and farm income surveys and records; cost of production studies?

(*f*) How far have techniques for economic appraisal of agricultural development projects been developed or found useful in your country? How are priorities determined and selections made between alternative possibilities?

(*g*) What are the possibilities and limitations of applying cost and benefit analysis in the appraisal of projects and means for expanding agricultural production, e.g. river basin projects; land development projects; construction of chemical fertilizer factories, etc.? What instances can be given from your country's experience?

8. Allocation of resources for investment in agricultural and non-agricultural development:

Questions suggested for discussion:

(*a*) What are the prospects in your country of mobilizing domestic savings, particularly in rural areas, for development purposes?

(*b*) What experience has your country had in measuring or estimating private savings and private investment in agriculture?

(*c*) What is your country's experience in utilizing surplus rural labour for investment or capital formation in agriculture, through individual efforts and through community or co-operative schemes—the extent, methods, types of project, problems, possibilities, etc.?

(*d*) What forms of government investment in agricultural development are most common and successful in your country, e.g. direct investment; indirect investment through public or joint finance and development corporations; loans; subsidies? To what fields has such government investment gone?

(*e*) What types of agricultural project can most appropriately use foreign capital—grants, loans or direct investment? What means have been found useful for attracting foreign capital in various forms into agriculture?

(*f*) How useful and practicable do you consider the following criteria and techniques for resource allocation and investment priority determination: capital-output ratios, resources budgeting and commodity balances, standard unit input requirements, input-output analysis, social cost and returns, "accounting prices"?

9. Incentives and institutional factors influencing the rate of agricultural development:

Questions suggested for discussion:

(*a*) What is the evidence in your country as to the efficacy of producer price policies in bringing about increases in agricultural production? What difficulties have been experienced with such policies?

(*b*) What is the experience of your country with producer subsidies as a means of promoting increased production along particular lines? What types of subsidy, grant or loan seem to be most effective and economical?

(*c*) What assessment can be made of the contribution of land tenure and other agrarian reforms to agricultural development in your country?

(*d*) What do you regard as the main features making for success in the provision of low-cost credit to small cultivators, e.g. nature of security demanded, role of co-operative societies, integration of credit and marketing, role of government?

(*e*) Has the inadequacy of marketing facilities retarded agricultural development in your country?

(*f*) How much experience is there in countries of the region to indicate that agricultural taxation systems can be devised which include incentives to investment while at the same time ensuring increased tax revenue from the agricultural sector as farmers' real incomes increase?

(*g*) What order of priority would it be appropriate to give to agricultural extension activities, relative to other institutional improvements, when drawing up an agricultural development plan?

(*h*) What emphasis should be given to the development of new agricultural techniques and to the adaptation of existing techniques to meet the needs of countries of the region?

(*i*) Which of the foregoing methods of stimulating agricultural development have been found most useful in your country?

10. Formulating a national agricultural plan—integration of demand forecasts, production possibilities and financial resources; implications of developments and programmes in other countries (concluding discussion):

(*a*) Confrontation and integration of demand or requirements, production possibilities, requirements for implementation, investment and foreign exchange resources available;

(*b*) Need for realism in planning. Limitations of planning—feasibility and desirability of setting centrally planned targets of agricultural production and investment for definite time periods. Extent to which quantitative targets for agriculture are useful and necessary;

(*c*) Implications of developments and programmes in other countries.

11. Adoption of the report.

AGRICULTURAL DEVELOPMENT AND PLANNING IN COUNTRIES OF ASIA AND THE FAR EAST

I. IMPLICATIONS FOR AGRICULTURE OF ECONOMIC DEVELOPMENT, PARTICULARLY INDUSTRIALIZATION[1]

Introduction

Agriculture contributes in a number of ways to economic growth, especially in its initial stages. It supplies food to everyone, including the growing industrial population. It supplies at least part of the raw materials for the expansion of domestic industry. The agricultural population usually provides the labour reservoir for industry and offers a growing market for consumer goods, and for producer goods essential to agricultural production. In the initial stages of development, this market is indispensable for industrialization and, when the economy badly needs to accumulate capital in order to increase both industrial and agricultural output, the "surplus" funds in agriculture may constitute an important source of capital formation. Finally, the export of agricultural products provides the foreign exchange for imports of equipment and raw materials for industry.

Agriculture, however, is also conditioned by the development of other branches of the economy, particularly of industry. Agriculture cannot expand, if the export demand remains unchanged, unless a growing urban population with a rising standard of living will absorb larger quantities of raw materials and above all of food. Since food and other farm products account for a large part of the total movement of goods, this urban market will to a great extent provide the economic basis for improving transport and communications. Moreover, the opportunities of industrial employment check the growth of the farm population, or, as would be preferable in most countries of the region, may actually reduce the number of people on the land, thus raising productivity. Agricultural production can be expanded more readily, too, with an adequate supply of the means of production (fertilizers, machinery and other equipment, power etc.) which industry provides. Consumer goods produced by industry encourage the farmer to raise his output and income. Under certain circumstances, the agricultural sector cannot be built up unless investment funds flow into it from the industrial sector, though, at the present time in most countries in the ECAFE region, it is likely that the net flow of investment funds will usually be in the other direction.

Nor, considered from the demand end at least, can either agriculture or industry expand in isolation without being halted very soon or running into the balance of payments troubles. If industrial production and incomes expand while the agricultural sector remains stagnant, only a part of the increase in incomes in the industrial sector will be spent on industrial products. The remaining part will go on agricultural products and services.[2] If these do not expand, there is likely to be inflation or an increase in imports of food (superimposed on a rising volume of imported raw materials and equipment for the expansion of industry) and hence possibly severe pressure on the balance of payments. Similarly, if the increase in agricultural output is not paralleled in industrial production, the domestic market for the absorption of agricultural products will be limited and, assuming export markets remain unchanged, incomes per head in the agricultural sector may not increase markedly.

Demand for Food and Raw Materials

Economic progress induces profound changes in the growth and pattern of consumer demand for agricultural products, mainly food. These changes in turn are associated with significant modifications of, among other things, population growth, income growth and distribution, spatial and occupational distribution of population, tastes and so on. Nutritional considerations also play a part in the evolution of the demand for food. Although the precise influence of each of these factors on the potential demand for food (and agricultural raw materials) needs to be more closely analysed in the countries of the region, the following general observations may be formulated.[3]

The achievement of an adequate balance between food supply and population is one of the most pressing problems of this region. The growth of the region's food production since the Second World War has not, despite some substantial gains during 1952-1956, caught up with population. Per capita food production in 1955/56 was 8 per cent less than before the war, and the levels and patterns of food consumption were, and still are, clearly inadequate. The population of most countries of the region is tending to increase rapidly

[1] Revision of E/CN.11/DPWP.3/L.6, a paper prepared for the Third Session of the Working Party on Economic Development and Planning by the ECAFE secretariat.

[2] Balance between agriculture and industry does not therefore mean equal growth of both sectors. As income grows, a relatively greater proportion of it is spent on manufactures and services. Agricultural improvement cannot, therefore, go far without a greater development of non-agricultural activities, *i.e.* industrialization.

[3] Further treatment of this question will be found in section III on "Forecasting Demand for the Principal Agricultural Commodities" below.

and to spend an overwhelming proportion of its income on food. Since over one-half of the world lives in this region, it is hardly realistic to rely on greater food imports, which in any case are difficult to pay for.

In these circumstances, the minimum objective for the region's agricultural development should be to keep pace with the growth in numbers. Rough calculations suggest that such a 'minimum target' alone would presuppose an annual increase in agricultural production over the next decade of about 1.5 per cent. But this is on the assumption that agricultural development, by and large, would continue to be mainly of a subsistence character and that there would be no improvement in nutritional levels. If per capita incomes rise, then this minimum growth rate will obviously be quite inadequate.[4]

The agricultural development of the region should be planned to take account of nutrition, since the populations of almost all countries of the region have been suffering for a long time not only from undernutrition but also from serious malnutrition.[5] The improvement of nutritional levels will entail significant adjustments in consumption and hence in agricultural production—in the direction of greater supplies of livestock and fishery products, vegetables and fruits. While the education of consumers in nutrition is important in creating a balanced diet, the problem is basically one of economics since effective demand is restricted. Only economic progress in general and a rise in per capita income in particular can ensure a suitable level of food consumption.

Although, at nearly all stages of development, the main function of the agricultural sector will be to supply food, the demand for raw materials by a domestic industry will also stimulate the expansion of agricultural output. The development of consumer goods industries will increase the demand for agricultural raw materials (such as timber, pulp and paper, or textile fibres). In other words, that demand, unlike that for food, is fairly elastic with respect to increases in income. Fortunately, this region is capable of producing a wide variety of such raw materials, and industries using them have good prospects both in domestic and regional markets.

Occupational Shift and Economic Progress

Economic growth is associated with changes in the ratio of the agricultural to the non-agricultural labour force owing to a rise in average per capita incomes, which shifts consumption towards non-agricultural products. More specifically, the ratio of producers of agricultural products (agriculturalists) to consumers (agriculturalists plus non-agriculturalists) falls steadily. This presupposes that, in a closed economy, productivity in the agricultural sector rises faster than consumption per head of the agricultural population, so that there is a surplus of food (and agricultural raw materials) for the growing industrial population. It should be noted, however, that the general tendency is for industrial incomes to rise faster than agricultural incomes. If per capita income levels were to rise equally in the agricultural and industrial sectors, there would be a need for an even more rapid increase in agricultural productivity.

A shift in the occupational pattern of the labour force from a ratio of 70 to 30 as between agriculture and non-agriculture respectively (as is generally the case in the region) to, say, 40 to 60 respectively implies that one adult engaged in agriculture is required to increase his production of food from enough to support 2 to 3 more persons besides himself to 5 to 6 more persons,[6] and that at a considerably higher dietary level. During such a shift, not only is population growing but the levels of living of both agriculturalists and non-agriculturalists are rising under the dynamic impact of industrialization. This whole transformation moves at different productivity levels but as an organic whole, with the result that the level of productivity in agriculture has to be multiplied several times over.

While several other factors need to be carefully analysed before the increases of productivity called for in Asian agriculture can be calculated, certain related observations may be made with a view to assessing the importance of the problem in the region. In Asia, the yield per person in agriculture is about one-twelfth of the yield in North America and Oceania, one-fourth of the yield in Europe and one-half of the yield in South America.[7] The level of output per hectare, in spite of the high density of farm population, is also lower in several cases. Moreover, cereal yields per hectare in most countries of the region are below the 1909-13 level.[8]

The enormous pressure on land, which is mainly due to economic stagnation and the lack of alternative employment outside agriculture, has resulted, in several countries of the region, in a decline in per capita productivity. In view of this decline and of the considerable amount of surplus agricultural labour in several countries of the region, it can be argued that industrialization provides the most effective means of absorbing the ever-growing rural population.[9]

Agriculture and Foreign Trade

One of the important determinants of the rate of economic development in countries of the region is the size of the foreign exchange resources available for

[4] The planned average rate of growth in per capita national income, on an annually compounded basis, is in percentages, 5.4 for Burma, 6 for China (mainland), 3.3 for India, 4.1 for Japan and 6.3 for the Philippines. On the other hand, similar rates are only 1.1 for Ceylon, 1.3 for Indonesia and 2.3 for Pakistan. United Nations, "Salient Features of Economic Development Plans", *Economic Survey of Asia and the Far East, 1956* (sales number: 1957, II.F.1), pp. 44, 50.

[5] As FAO studies on minimum physiological calorie requirements have shown, the average energy intakes in most Far Eastern countries are among the lowest in the world and below those considered necessary to maintain levels of health. Diets in the region, according to the recent United Nations *Report on the World Social Situation* (E/CN.5/324, 27 February 1957), fall short of minimum requirements by 12 to 18 per cent in Ceylon, India and the Philippines, and by 5 to 7 per cent in Japan and Pakistan.

[6] Assuming that the labour force constitutes about 40 per cent of the total population in both periods. (This example disregards the simultaneous requirements for the production of industrial raw materials).

[7] United Nations, *Land Reforms: Defects in Agrarian Structure as Obstacles to Economic Development* (sales number: 1951.II.B.3), p. 4.

[8] United Nations, "Population and Food Supplies in Asia and the Far East", *Economic Bulletin for Asia and the Far East,* vol.VII, No.1, May 1956.

[9] For a fuller discussion of this problem, see section five on "Allocation of Resources for Investment in Agricultural and Non-Agricultural Development", below.

imports of developmental goods, and especially of capital goods. In the early stages of development, money incomes tend to increase more rapidly than production, and, if the development programme is pivoted on projects with long maturity periods, severe shortages may arise in the supply of wage and incentive goods, especially foodstuffs. The development programme itself may be jeopardized by inflation if such shortages are not promptly relieved. It is obvious that food imports provide one of the most important cushions for such indirect pressures, but these in turn cause increased pressure on the balance of payments. Moreover, rising internal demand may cut into export surpluses of various products and thus reduce foreign exchange earnings.

The export proceeds of many countries of the region have been subject to extreme fluctuations, owing mainly to swings in export prices accentuated by quantum variations.[10] Nonetheless, the region is bound to be highly dependent on foreign trade both for capital and essential consumer goods till its national economies can produce the range of goods necessary for development. Again, because of such dependence on imports for essential consumer goods, the margin available for financing imports of capital goods is itself fairly narrow and uncertain. It is essential, therefore, to enhance the export capacity and the import-saving capacity of these countries.

In this connexion, it may be mentioned that, while, in the pre-war period, the region was a substantial net exporter of cereals and sugar, it has now become a substantial net importer of both. Net imports of livestock products such as dried and canned milk, meat and animal fats have also increased considerably.[11]

Transition from a Subsistence to a Market Agricultural Economy

In the case of agricultural raw materials, the traditional exports of the region, export promotion may have to be more active than before and also more selective.[12]

In a self-sufficient subsistence economy, the demand for agricultural products expands only slowly, largely in response to the growth of population. Neither are there the physical facilities (transport, storage and marketing) required for the disposal of agricultural products, nor do the subsistence peasants, producing and consuming in a traditional framework, have the incentive to produce more than necessary for their own immediate needs.[13]

It requires considerable changes in the economic and social organization of the community to effect a transition (which is bound to be slow and gradual) from subsistence production to a market-oriented economy. It also presupposes an expansion of the money economy, improvements in physical facilities (especially transport arrangements), and the dynamic growth of non-farm demand for agricultural products, a process which leads to the commercialization of agriculture.

Given these factors, the transition will be effected by raising agricultural productivity and peasant purchasing power to a point where the peasant is able to satisfy his subsistence needs and is still left with a surplus to be sold on the market in return for industrial goods and services. In due course, this will swell the transactions in both the industrial and the agricultural sectors and hence the volume of exchange between the two. As a result, an almost revolutionary transformation will take place in peasant agriculture, which will become increasingly integrated with the national and international economy.

It may be emphasized that, in the initial stages of economic growth, the limited size of the marketable surplus in agriculture may well restrict the process of industrialization or, alternatively, lead to a balance of payments crisis. The utilization of such a surplus has, therefore, a domestic and an external side to it. Domestic industries require food for their workers and raw materials for their factories, but agricultural exports are also needed to finance the capital equipment for such industries. Thus, the success of industrialization for the home market is intimately connected with the expansion of the marketable surplus in agriculture.

In addition, in densely populated agrarian economies, disguised unemployment contains a disguised savings potential in the form of surplus labour which can be harnessed to the process of economic growth. Industrialization is therefore dependent on the successful mobilization not only of the concealed food surplus[14] but also of this potentially available manpower which together constitute the "investible" surplus from agriculture. It should, however, be pointed out that this process cannot be expected to be automatic and may, in fact, be subject to heavy leakages and have to surmount socio-economic difficulties. The problem is not merely that of mobilizing the concealed food surplus, but possibly even more to siphon off a greater share of future productivity increases in agriculture in order to stimulate capital formation, both within and outside the agricultural sector.

Need for raising the Sights in Planning

Production possibilities

In most countries of the region, the targets of agricultural production have to be set much higher than present levels or those originally planned. Force is lent to this contention by the greater emphasis being laid

[10] United Nations, *Instability in Export Markets for Under-developed Countries* (sales number: 1952.II.A.1) and *Commodity Trade and Economic Development* (1954.II.B.1); United Nations, "A Statistical Note on Changes in Terms of Trade and their Effects on National Income and Trade Balance in ECAFE Countries", *Economic Bulletin for Asia and the Far East,* vol. VIII No.1, May 1957.

[11] "Population and Food Supplies in Asia and the Far East", *ibid.* According to the United Nations report on the *World Social Situation,* gross exports of food and feeding stuffs of the Far East (excluding mainland China) between 1951 and 1954 averaged only 44 per cent of the pre-war level, while imports increased 14 per cent.

[12] This subject is discussed more fully in section III on "Forecasting demand for principal agricultural commodities".

[13] Thus, the economy has within its borders subsidiary subsistence societies of more or less self-contained village units which experience alternatively food shortages when nature is niggardly and gluts when it is bountiful. Under such conditions, neither can local shortages be relieved nor local surpluses promptly absorbed.

[14] Equivalent to the food now consumed by the surplus population on farms; this is mobilized if made available for feeding the same population when transferred to industry.

on agriculture in the formulation or subsequent revision of economic development plans of a number of countries including Afghanistan, Burma, Cambodia, Ceylon, mainland China, India, Nepal and Pakistan.[15]

In the post-war period, between 1949/50 and 1955/56, the 16 per cent increase in cereals production in the region was mainly due to the expansion in the area cultivated. Further increases in area are limited by several factors such as the relative scarcity of land and the generally high investments needed to bring new or less fertile land under cultivation.

In spite of the difficulties encountered in raising yields, it appears that these countries will have to rely more and more on increases in productivity flowing from the improved utilization of land and water resources, the development of agricultural research and extension services, the adoption of pesticides, improved varieties of seeds, manures, implements and so on. In most of the agricultural development plans of the region, a substantial part of the proposed increases in production is expected to come not so much from land reclamation, mechanization and other capital-using operations, as from improved cultivation practices requiring only modest investments (although the provision of irrigation is important). Great stress has accordingly been laid on national extension services and community development schemes (by e.g. Burma, Ceylon, India, Pakistan and the Philippines) and on the acceleration of co-operative and collective farming (by mainland China). To what extent those measures, in combination with others, are capable of contributing to the increase in agricultural production, has to be carefully studied.[16]

Institutional factors

The poverty of most Asian economies is reflected in the state of their agriculture. Asia, with half the world's population and nearly two-thirds of the world's rural population, has only one-fifth of the world's agricultural land. More than two-thirds of Asia's manpower is engaged in providing its populations with a subsistence standard of living. A similarly high proportion of consumer incomes is spent on food alone, whose quantity and quality hardly meet even the minimum nutritional requirements.

The populations in most countries of the region have grown by more than one-half in the last half century. The intense pressure on land[17] has also led to unsatisfactory conditions of land tenure and to the creation of numerous intermediaries and middlemen. Such conditions have led to the fragmentation of holdings, sub-infeudation, minifundia, rack-renting and chronic agrarian unrest. Consequently, the agricultural sector is marked by incredibly low levels of productivity per worker and sometimes also per hectare. The agricultural problem of Asia is therefore not merely economic but also intensely human.

No plan for agricultural development in the region which does not include bold measures to make land and labour free and efficient agents of production can, on this view, be considered to be complete. In many countries of the region, an impressive volume of land reform legislation is already on the statute books or under consideration,[18] although systematic studies evaluating it, in terms of its objectives, are perhaps yet to be undertaken.

Land reform, especially changes in the land tenure system alone, will not, however, solve the problem of agricultural poverty unless accompanied by other measures like consolidation of holdings, provision of appropriate transport, credit, marketing, storage, advisory technical and health services and, above all, the development of the non-agricultural sector of the economy.

Finally, only a brief mention can be made here of the administrative reforms necessary for the progress of agriculture. In the period preceding the initiation of development plans in the region, the primary objective of administration in most countries of the region was much more the maintenance of political stability (law and order) rather than the development of the economy. Now, in the formulation and execution of development plans, and also in their day-to-day implementation, entirely new administrative, managerial and technical skills are required. The lack of such skills is probably one of the biggest obstacles to the agricultural development of Asia. The development of adequate statistical data on the agricultural sector in particular and on the economy in general remains a serious bottleneck and can only be remedied over a period of time. Till then, the task of detailed planning must continue to be difficult and liable to changes, particularly in view of natural uncertainties such as weather conditions and the instability of export earnings, and the difficulty (or impossibility) of estimating the effects that various programmes for agricultural expansion (e.g. land reform, improved technical methods and materials, institutional changes, etc.) will have on agricultural production.

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[15] Thus, in mainland China, it was reported that under the draft second five-year plan (1958-1962) the target rate of growth of agricultural output, on an annually compounded basis, was about 6 per cent, as against 4 per cent in the first plan. In India the revised second plan target for agricultural production as a whole is about 5 per cent per annum, the rate for food production being about 4.5 as against the original tentative target of less than 3 per cent. High annual rates for food grains targets were also set for Ceylon (10.9 per cent) and southern Korea (7 per cent). United Nations, *Economic Survey of Asia and the Far East, 1956.*

[16] Colin Clark, summarizing a great deal of information on comparative trends in agricultural productivity, comes to the conclusion that, given certain favourable factors, it should be possible to increase net agricultural productivity at the rate of one or two per cent a year in the under-developed countries. In the more advanced countries, the rate of increase in gross productivity may rise to between three and four per cent a year, with the use of greater industrial inputs. (Colin Clark, "The Development of Agricultural Productivity", *The Eastern Economist,* Economic Growth Supplement, 26 April 1957).

[17] The destruction of traditional handicraft employment and the severe lag in the growth of alternative occupations outside agriculture have intensified the pressure on land and thereby lowered economic efficiency. The size of agricultural holdings has been diminishing and available evidence, while not too conclusive, often points to a stagnant and even declining yield.

[18] United Nations, *Progress in Land Reform* (sales number: 1954, II.B.3), and also *Progress in Land Reform, Second Report* (1956, II.B.3).

II. AGRICULTURAL DEVELOPMENT PLANS OF THE COUNTRIES OF THE ECAFE REGION[19]

National Investment Totals

Some general information on the economic development plans of thirteen countries of the region is presented in table 1.[20] In the case of nine countries the plans have been adopted and are in the process of implementation; in the other four countries developmental activities are under way, either under a previous plan (Indonesia, southern Korea and the Philippines), or on an *ad hoc* basis, but largely within the framework of the contemplated plan (southern Viet-Nam).

In Japan, the role of the government in economic life is growing but is still limited, and the overall "Plan" is therefore in effect a projection of probable and desirable trends over the next five years. A number of other countries, including Afghanistan, China (Taiwan), India, Indonesia, Pakistan and the Philippines, make estimates of the contribution of the private sector. The plans of the other countries refer only to the developmental expenditure of the public sector. Plans for agriculture consist mainly of expenditure by governments, although it is generally realized that the private cultivator ultimately has a most important role in development.

Table 1 shows the share of the planned public developmental expenditure aimed at benefiting agriculture. In order to make the figures in table 1 comparable the item "agriculture" includes in addition to crop and livestock production, also irrigation, land development, community development and extension, forestry, fisheries, multiple-purpose hydraulic projects, and investigations of future water resources for irrigation. The share of agriculture, as thus defined in the planned public developmental expenditure, ranges from 8 per cent in China (mainland) to about 45 per cent in Afghanistan and Pakistan. For Burma, China (Taiwan), India, Indonesia and Malaya, the share is around 15-25 per cent, while, for Cambodia and Nepal, it is just over 30 per cent.

Chief Objectives and Targets of the Agricultural Development Plans

The main explicit objectives and targets of the agricultural development plans of twelve countries are tabulated in table 2, and expanded in the appendix to this section. Apart from the more general aims and objectives of economic development planning as a whole, such as general economic and social advancement and the achievement of higher per capita incomes, it is obvious (see the left-hand columns of table 2) that balance of payments considerations are of foremost importance in the formulation of agricultural development plans of eleven of the twelve countries. These considerations are directly reflected in three objectives. First, that of achieving virtual, or at least a greater degree of, self-sufficiency in regard to the staple items of food. Second, that of producing at home increasing amounts of other agricultural products which have traditionally been entirely or largely imported—e.g. sugar, fruits, fibres, oil-seeds—thus effecting a further saving of foreign exchange. Thirdly, there is the policy of increasing the production and exports both of established export crops and of crops which were previously cultivated to a small extent, or not at all, but for which there is a foreign demand, such as coffee, canned fruits and sea products.

The relative emphasis placed on these three ways of improving the foreign exchange situation will depend on whether the country is an exporter or importer of food or raw materials. Nearly all the countries of the region export some agricultural products, and consequently the majority of them stress the importance of increasing exports thereof. Some are at the same time food deficit countries, and underline the importance of increasing food production at home with a view to meeting the increase in requirements resulting from population growth, urbanization and higher per capita incomes.

Diversification of agriculture is an objective shared by a number of countries in order to lessen dependence on one or a few predominating export crops—e.g. Burma, Cambodia, Malaya or to meet the demand for a more varied diet expected or planned to result from higher per capita real incomes (in the case of India, Japan, Pakistan).

A further objective specified by some countries (e.g. Burma, India, Philippines, China (Taiwan and mainland)) is that of creating or broadening a base of agricultural raw materials for the expansion of domestic manufacturing industries.

As can be seen in the right hand side of table 2, the plans differ widely in regard to the comprehensiveness of the set of targets established. There are plans like those of China (Taiwan), India and Japan, which give rather detailed targets on the one hand for production, trade, and consumption, and on the other for the means to be used in order to achieve the output targets. Other plans such as those of Afghanistan, Cambodia, Malaya and Nepal do not set output targets or at most only approximate ones and concentrate on some targets of input (e.g. of fertilizers).

A prerequisite for establishing realistic targets of production is a reasonably good body of statistical and other information concerning the agriculture of the country. The current pattern of land use and the extent of untapped agricultural resources of the country should be known to some degree. There must be sufficient information available on the responses of the various crops in different regions of the country to improved

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19 Revision of E/CN.11/DPWP.3/L.4, a paper prepared for the Third Session of the Working Party on Economic Development and Planning by the ECAFE secretariat.

20 There are altogether fourteen plans, since in the case of China separate plans were prepared for Taiwan and the mainland.

Table 1.

Characteristics of Economic Development Plans of the Countries of the ECAFE Region

(Expenditures in millions of indicated currency, unless otherwise stated)

Country and currency	Plan				Total public expenditure[a]		
	Title and duration		Status	Characteristics	Public sector	Share of agriculture[b] in public sector	
AFGHANISTAN; Afghanis . .	Second five-year plan	1956/57-1960/61	Adopted, August 1956	Public expenditure and estimates of private investment	4,991[b]	2,294	46.0
BURMA; Kyat	Four-year plan of public investment	1956/57-1959/60	Under consideration[c]	Public development expenditure	2,512	435	17.3
CAMBODIA; Riels	Two-year equipment plan	1956-1957	Adopted, October 1955	Public development expenditure preparatory for a longer term plan	3,500	1,176	33.6
CHINA: (Taiwan); New Taiwan dollars	Second four-year plan for the economic development of Taiwan	1957-1960	Approved by Executive Yuan, May 1957; subject to adoption by legislature[d]	Public developmental expenditure combined with estimates of investments by the private sector.	12,327	2,244	18.2
(Mainland); Yuan	First five-year plan (second is under consideration)	1953-1957	Adopted, July 1955	Comprehensive plan of public capital investment	76,640	6,100	8.0
INDIA; Rupees	Second five-year plan	1956/57-1960/61	Adopted, May 1956	Comprehensive plan of public investment and policies, combined with estimates of investments by the private sector	48,000	10,540	22.0
INDONESIA; Rupiah	Five-year development plan	1956-1960	Subject to adoption by legislature[e]	Public developmental expenditure with estimates of investments by private and community sectors	12,500	3,257[f]	26.0
JAPAN; Billions of yen	Economic self-support five-year plan	FY 1956-FY 1960	Adopted, December 1955	Projection of probable trends in a private enterprise economy, and programme of public works	5,512[g]	1,077[g]	19.5
KOREA, southern; Hwan . . .	Five-year plan	1957-1961	Under consideration[d]	Public developmental expenditure	...	...	...
MALAYA; Malayan dollars . . .	Five-year capital expenditure plan	1956-1960	Adopted, February 1957	Public developmental expenditure	1,009.5	236	23.4
NEPAL; Mohur	Five-year plan	1956/57-1960/61	Adopted, October 1956	Public developmental expenditure	330	103.5	31.5
PAKISTAN; Rupees	First five-year plan	1955/56-1959/60	Subject to adoption by legislature[e]	Public developmental expenditure with estimates of private investment	9,349[h]	4,202	45.1
PHILIPPINES; Pesos	Five-year economic and social development programme	FY 1957-FY 1961	Under consideration and and revision[e]	Public developmental expenditure and programme of encouragement of private investment	1,860	307	16.5
VIET-NAM, southern; piastres . .	Five-year plan	1957-1961	Under consideration[e]	Investment programme, mainly through foreign aid and loans	17,500	...	...

[a] To make the figures comparable crop and livestock production, irrigation, land development, community development and extension, forestry, fisheries, multiple-purpose river projects and investigation of future water resources for irrigation are included.

[b] Excluding the ordinary budget, which is mainly non-developmental.

[c] Economic development schemes continue to be initiated on *ad hoc* basis, but largely within the framework of the draft development plan.

[d] Developmental activities are in the meantime carried on under previous plan.

[e] The current development plan of the Ministry of Agriculture will be incorporated in the new plan.

[f] Including migration.

[g] Private investment in equipment. Government public works expenditure will during the same period amount to 905 billion yen of which 169.5 billion, or 18.7 per cent, is for measures to increase food production.

[h] If the expected shortfall is deducted, 7.5 billion rupees.

Table 2.

Objectives and Targets of Agricultural Development Plans of Countries in ECAFE Region

Country	CHIEF OBJECTIVES							TARGETS														Country
	Means of improving balance of payments			Diversification of agriculture	Raw materials for expansion of manufacturing	Adequate food supply to counter inflationary pressure	Other objectives	Production					Exports	Imports		Consumption	Means of increasing production			Community development	
	Increased self-sufficiency in staple foods	Increased export earnings	Import substitution					Food crops	Industrial crops	Livestock and products	Forestry products	Fishery		Food	Agricultural raw materials		Irrigation	Improved planting materials	Fertilizers		
AFGHANISTAN		×							×[a]	×[b]							×				AFGHANISTAN
BURMA		×	×	×	×			×	×	×[c]			×				×	×	×	×	BURMA
CAMBODIA				×			[d] [e]														CAMBODIA
CHINA (Taiwan)	×	×	×		×			×	×	×	×	×	×	×	×		×	×	×		CHINA (Taiwan)
(mainland)		×	×		×			×	×	×	×	×					×		×		(mainland)
INDIA	×	×		×	×	×		×	×	×[f]		×	×	×	×	×	×	×	×	×	INDIA
INDONESIA	×	×	×					×	×	×	×	×					×		×		INDONESIA
JAPAN	×	×[g]		×			[h]	×	×[i]	×	×	×	×	×	×	×			×[j]		JAPAN
KOREA, southern	×	×					[k]	×	×	×[l]			×				×	×	×		KOREA, southern
MALAYA	×	×	×	×													×	×[m]			MALAYA
NEPAL							[n]											×		×	NEPAL
PAKISTAN	×	×		×		×		×	×		×	×	×				×	×	×	×	PAKISTAN
PHILIPPINES	×	×	×[o]		×			×	×	×	×	×	×				×		×		PHILIPPINES

Note: The symbol "×" indicates inclusion of objective or target.

[a] Cotton only.
[b] Karakul pelts and wool only.
[c] Hides and skins only.
[d] To prepare a base for, and to facilitate the lunching of, a longer term plan.
[e] To stabilize at a high level the production of rice.
[f] Eggs only.
[g] Referring to silk cocoons and silk.
[h] To increase productivity of agriculture, and thus to increase employment opportunities in it.
[i] Silk only.
[j] Production, exports and imports are projected.
[k] To make maximum use of the under-employed rural labour force.
[l] Livestock numbers only.
[m] Mainly rubber replanting; improved paddy seed also distributed, but no targets given.
[n] To achieve a higher general level of consumption.
[o] Especially in regard to industrial raw materials.

practices such as irrigation and the application of fertilizers. Sufficient experimentation and field trials must have been carried out to demonstrate the superiority of selected seeds and other planting material under the main conditions experienced. Moreover, reliable methods of collecting current statistics on the sown area and production of various crops must have been worked out. Where such information is not available, targets of production, if established, might reflect hopes and desires rather than realistic possibilities.

Of the countries which have established detailed targets of production, most give specific targets for all the main food and industrial crops. The targets of eight countries for rice, other foodgrains, cotton and jute are set out in table 3.

Most plans also provide for the improvement of animal husbandry. Owing to relatively unsatisfactory livestock statistics, however, very few countries have drawn up detailed estimates of livestock numbers and production during the plan period. Several countries have included estimates of the likely production of fish and timber resulting from their plans for these fields of production.

As the promotion of exports is one of the chief objectives of agricultural planning, it is not surprising that some countries have specified targets for exports, at least for their chief export products. The degree to which export quantities and foreign exchange earnings can be forecast is limited, but it is desirable to work out such targets in as much detail as possible.

While, in the long run, consumption is the ultimate objective of all economic development, most of the countries in question have not reported targets of consumption for the key agricultural products.[21] This is partly due to the relatively greater importance currently laid on certain other considerations, such as the balance of payments and the establishment of a general climate favourable to increased production, and thus, ultimately, also consumption. A gradual increase in consumption levels, too, is often taken for granted as being a consequence of the implementation of economic development plans. In some cases the production targets have been converted into terms of calories per capita.

The realism of projection of import requirements depends on the realism of targets of production and consumption. Only three of the development plans reviewed, namely those of China (Taiwan), India, and Japan, include targets of imports of the main agricultural products, such as grains, oil-seeds and oils, fibres and so on.

The three forms of input for which targets are most commonly established are (*a*) area to be covered by irrigation, (*b*) quantities of fertilizers to be produced or distributed and (*c*) areas to be planted with improved planting material. These are also the most common means upon which reliance is placed for achieving increases in agricultural production in the short run. Such inputs are relatively easy to calculate, and in many countries they are to a great degree under the control of the government. A very large part of all irrigation works is carried out as public works, and much of the remainder is sponsored by the state in one way or another. Fertilizer production and imports are in many cases in the hands of the government, and their use is commonly subsidized, as is the distribution of improved seeds and seedlings. Further, the experimental work leading to the development of better planting material, as well as much of the seed multiplication, is generally done on state experimental and demonstration farms. The extent to which fertilizers and improved planting material are used depends largely on the efficiency and coverage of the extension system in the country.

[21] Some countries, however, for example China (Taiwan), have specified targets of production and exports, showing that certain consumption levels have been assumed.

Table 3.

PRODUCTION TARGETS FOR FOODGRAINS, COTTON AND JUTE IN SELECTED COUNTRIES OF THE ECAFE REGION
(Thousands of tons)

Country	Actual production year	Target year	Rice		Other foodgrains		Raw cotton		Raw jute	
			Actual production	Target	Actual production	Target	Actual production	Target	Actual production	Target
Burma	1955/56	1959/60	5,869[a]	7,315[a]	...	...	1.6	19.6	3.3	50.8
China:										
(Taiwan)	1956	1960	1,790	2,050	27[b]	31[b]	...	...	17.5	19.8
(Mainland)	1952	1957	68,430[a]	81,770[a]	95,490[c]	111,040[c]	1,310	1,640	310[d]	370[d]
India	1956/57	1960/61	...	...	66,800[e]	81,700[e]	911	1,410	765.8	1,000
Indonesia	1955	1959	7,100	8,600	1,900[f]	3,500[f]	...	...	...	...
Japan	1954	1960	9,705[gh]	10,591[h]	3,810[gi]	4,194[gi]	...	...	...	...
Korea, southern	1956/57	1960/61	2,246[hj]	2,755[h]	k	k	...	...	...	...
Pakistan	1	1959/60	8,450	9,362	4,627[m]	5,420[m]	353	490	1,010	1,160
Philippines	1955	1961	3,203[a]	3,826[a]	770[f]	1,076[f]	n	10	...	...

[a] Paddy. [b] Wheat.
[c] Wheat, soya beans, coarse grains, potatoes.
[d] Jute and ambary hemp.
[e] All food grains. [f] Maize.
[g] "Assumed production". Actual production in 1954 was 9.113 million tons of rice and 4.081 million tons of other food grains.
[h] Brown rice, approximately 80 per cent of paddy weight.
[i] Wheat, barley, naked barley.
[j] A poor crop year.
[k] In capacity terms, the weight equivalent of which varies according to the kind of food grain. The 1961 output is projected to exceed the 1957 figure by 12 per cent.
[l] A recent three-year to five-year average.
[m] Wheat, maize, other foodgrains.
[n] Estimated at about 70 tons.

Scope and Coverage of Agricultural Development Plans

Table 4 presents a general picture for nine countries of the coverage of the sections of the agricultural plans in which public investment is to be undertaken. Crop production, animal husbandry, forestry and fisheries are almost always represented, with strong emphasis on crop production. Malaya will devote about two-thirds of the plan expenditure to the development of crop production (excluding irrigation), mainly on its chief export crop, rubber. Great weight is attached to public investment in forestry in China (Taiwan) and Nepal, and to fisheries in Cambodia, China (Taiwan) and the Philippines. A notable feature is the relatively high proportion in all nine countries of investment on irrigation, which has a direct impact on crop production. The proportion ranges from 11.9 per cent in Burma to 64.2 per cent in Pakistan. India and Nepal show a high rate of investment in community development activities. Land development and reclamation are stressed in the plans of China (Taiwan) and Japan.

Various kinds of research and basic survey activities are given high priority by countries where statistical and other factual information is at the moment still scarce. The plan of Afghanistan, for instance, puts great emphasis on experimental farms and various agro-economic studies. In Cambodia, a survey of the resources of the country for crop production, animal husbandry, forestry and fisheries is a prominent part of the plan, as is also the establishment of a number of experimental stations, research institutes, and laboratories. In Nepal, a cadastral survey will be made, and various research and experiment projects form a prominent part of the plan. The Malaya plan includes provision for a general land use survey and the preparation of a topographic map of the country.

Agricultural extension work has an important place in many of the plans, either directly or as part of community development programmes. Research, chiefly of an applied character, is also emphasized. Feasibility of new crops, use of fertilizers, economic farm size, mechanization, and selection and breeding of improved planting materials are the chief subjects studied.

Agricultural price policies have been referred to in the plans of a number of countries, including India, Pakistan, and the Philippines. Price policies are generally considered as a part of the framework within which the plan is to function rather than as a part of the plan itself.[22] In Japan, an elaborate system of supporting agricultural prices has been in operation for the past several years.

Formulation of plans

In most countries of the region, the task of assessing the needs and direction of agricultural development is considered to be a governmental (or quasi-governmental) responsibility with only marginal participation of the public in this process. It is generally regarded as a task involving collaboration between the technicians and administrators of the central planning organization and the administrative ministries or departments concerned.

[22] Price policies are discussed in greater detail in section VI on "Incentives and Institutional Factors Influencing the Rate of Agricultural Development", below.

Table 4.

Agricultural Development Plans of Countries in the ECAFE Region

(Per cent distribution of planned public expenditure)

Country	*Crop production*	*Animal husbandry*	*Forestry*	*Fisheries*	*Irrigation*	*Land development etc.*	*Community development*	*Other expenditure*
Burma	79.8			8.3	11.9	—	—	—
Cambodia	9.6	6.9	7.8	7.6	28.8	16.7[a]	—	22.6[b]
China (Taiwan)	17.0	1.6	28.0	15.4	29.6	8.4	—	—
India	7.8	5.3	4.4[c]	1.1	52.3[d]	2.1	21.6[e]	5.4[f]
Japan	—	—	—	—	59.3	40.7	—	—
Malaya	66.5[g]	0.6	1.3	2.1	16.4[h]	6.1	3.1[i]	3.6
Nepal	...[j]	...[j]	19.3	...[j]	19.3	...[j]	26.6	9.7[k]
Pakistan	10.9	3.0	2.3	0.8	64.2[l]	2.7	7.1	9.0[m]
Philippines	31.7	6.7	6.8	6.3	48.5	—	—	—

[a] Resettlement of abandoned land.
[b] Agricultural credit.
[c] Including soil conservation.
[d] Including flood control and other projects, and investigations and research.
[e] Including extension work.
[f] Development of co-operatives and marketing structures and miscellaneous expenditures.
[g] Mainly replanting and new planting of rubber.
[h] Excluding State expenditure on irrigation works (one-half of the federal expenditure) which is not part of the plan.
[i] Rural and Industrial Development Authority.
[j] Total for crop production, animal husbandry, fisheries and the Rapti Valley project: 25.1 per cent.
[k] Including 6.8 per cent for a cadastral survey.
[l] Including also multi-purpose projects, flood control and drainage, and surveys of water resources for irrigation.
[m] Including 4.5 per cent for reserves (East Pakistan) and 2.5 per cent for development of co-operatives, rural credit and marketing.

Main methods

In many cases, the process of formulating agricultural development programmes or plans begins in the central planning organization with the spelling out of over-all objectives and the drafting of the programme in broad outline, with the assistance of technical experts of administrative organization concerned (sometimes of the special experts of the central planning organization). The outline may be formally referred to the administrative department concerned for scrutiny and detailed working out of the programme on a schemewise and/or regionwise basis, with the assistance of regional administrative departments, if any. Thereafter, the schemes formulated by the administrative departments may be scrutinized in the central planning organization, in the light of the financial resources available and of a number of other considerations, such as the likely contribution, on completion, to foreign exchange earnings or savings etc. The integrated picture of the schemes approved by the planning organization may be submitted to the government (usually the Cabinet) for approval, which may in turn seek approval of the legislature. This might be the main opportunity provided to the farming and other sectors of the public to comment on the plan (albeit without materially influencing its form), though in some cases the plan approved by the government may first be published in draft form in order to elicit comments from the public before it is submitted to the legislature.

In certain other cases, the process of formulating programmes may begin with a request from the central planning organization to the competent administrative departments to work out development schemes within certain broad financial limits. The schemes prepared by the administrative departments are scrutinized in the central planning organization in the light of the financial resources available and of their relative importance to the economy of the country. The approved schemes may be combined and presented as a programme, even though this may not be integrated to the extent that is often characteristic of programmes of the type referred to in the preceding paragraph.[23] The programme thus formulated is generally submitted for approval to the government, usually the Cabinet, and is thereafter often submitted to the legislature for formal approval and with a view to securing some measure of public co-operation.

Collaboration with administrative departments

While the need for collaboration between the experts and administrators in the task of plan formulation is universally recognized, the extent of actual collaboration among the central government departments varies widely in the different countries. When colalboration is not close, the programmes may be found to have a number of defects. They may be formulated without taking into account either (*a*) the major limiting factors or (*b*) the need for synchronizing the different inter-dependent schemes. This could result in major irrigation schemes being planned without adequate consideration of the possibilities of water use in the light of soil conditions, cropping patterns etc. Or construction of embankments could be undertaken in a delta area without taking into account the consequences of interfering with the natural irrigation and drainage systems. Again, programmes for intensive cultivation measures may not be supported by (or co-ordinated with) programmes in respect of land reform, agricultural credit, or marketing.

A possibly more important aspect is the very limited collaboration between the administrative departments at the centre and those at the provincial (regional), district and lower levels in the tasks of plan formulation.[24] In a country with a federal type of government, where agricultural development is a responsibility of the individual states, collaboration between the central and state authorities in formulating a plan is essential. In a country with a unitary government, collaboration between the different rungs of the administrative hierarchy can help to foster a better appreciation of the needs and limitations of development and can enhance the preparedness of the administrative authorities implementating the schemes. In most cases, the plans relate to the provincial or regional level. Where there is a breakdown of plans to the district level, the programme may reflect development possibilities estimated at the provincial level rather than plans prepared at the district and lower levels.[25]

Collaboration with universities, public, etc.

Another important fact that deserves notice is the limited part at present played by non-governmental experts such as university personnel and by the public in the formulation of plans. In many cases, university personnel generally come into the picture as critics of the first draft of a plan published to elicit the reaction of public opinion. At times, however, they are entrusted with research tasks having a bearing on planning, or are appointed members of non-governmental groups constituted to advise governments on planning. For instance in Burma, university staff played a more important part in plan formulation by accepting part-time assignments in the secretariat of the Land and Agricultural Planning Commission. In Japan, university personnel and government officials are closely associated through an informally organized group in the application of theoretical economics to agricultural development and to the tasks of agricultural plan formulation.

The role of the general public, particularly the cultivators, in plan formulation is much less significant. They generally come into the picture as critics of the plan, either in their capacity as members of parliament or of semi-governmental bodies. This inadequacy of popular participation could, in certain circumstances, result in lack of support for the plan at ground level. Thus, the planners may wish to see the production of cereals increased in a particular area and to that end

[23] In this context, the following quotation from the six-year investment programme of Ceylon may be of interest: "The general role of the (planning) secretariat was to initiate a process of planning in the individual ministries. It had to determine the manner of presentation of programmes, to establish a general system of financial allocations, to secure the type of data pertinent to an over-all public sector programme, to ensure the consistency of this data with the annual budgetary provisions and generally to integrate and aggregate individual projects and programmes into a single whole."

[24] With important exceptions, some of which are mentioned later.

[25] The final process, namely, preparing blueprints of projects, may be taken up at the district and lower levels only when financial approval is to be asked for.

may provide fertilizers, improved implements and so on. But the cultivators may not use these or may use them for crops other than cereals. Basically the task of enlisting the support of farmers is one ascertaining and satisfying, at least in some measure, their needs. A good extension service could be of great help in this connexion.

Experience in China (Taiwan)

In 1952, the Taiwan Provincial Government assigned to some top officials the task of formulating a four-year plan for economic development. In 1953, the Economic Stabilization Board of the Executive Yuan set up various planning committees, including Committee D on agriculture.

The members of Committee D include the heads of all agencies of the national and provincial governments concerned with agriculture. At the request of the Board, Committee D revised the agricultural sector of the plan. For this purpose, a total of 61 senior specialists of agricultural organizations, government-owned agricultural enterprises and professors of the Agricultural College of the National Taiwan University were invited by Committee D to join its six *ad hoc* working groups—on food crops, special crops, animal husbandry, fishery, forestry and water conservancy. The main fields revised by the working groups included the development of the forestry, fisheries, animal husbandry, and water conservancy programmes, which were much too incomplete in the original draft, and the goals laid down for crop production which were considered over-optimistic.

At the request of Committee D, the Provincial Department of Agriculture and Forestry and the Provincial Food Bureau called meetings in January 1954 at Taipei to discuss the 1954 crop production programmes under the four-year plan. These meetings were attended by the chiefs of reconstruction bureau and the heads of the agricultural sections of all the county and municipal governments, representatives from county and municipal farmers' associations, and the heads and senior specialists of the agricultural improvement stations and research institutes. At these meetings, the provincial and regional goals and working policies for crop production in the crop year 1954 were discussed and the necessary decisions taken.

Later, early in February 1954, again at the request of Committee D, the provincial department and bureau referred to above jointly conducted meetings in each county of representatives from the county government, the county assembly, township offices and township farmers' associations, to discuss the township production goals and projects for crop production and the steps to be taken for their implementation. Each township office held a meeting later with the village chiefs and the heads of small agricultural units of the farmers' association (one unit in each village) to discuss the village production goals and projects for crop production. Their decision and recommendations were forwarded through the county authorities to the two competent provincial agencies.[26]

[26] T.H. Shen, "The Agricultural Four-Year Plan at Work in Taiwan", *Free China Review* (Taipei), April 1954.

Experience in India

In the light of its own assessment of needs, as also in the light of its past experience of development work, the Ministry of Agriculture in India formulated its proposals in respect of the second five-year plan. These were considered and given general approval by the State Departments of Agriculture for submission to the Planning Commission. Proposals from other ministries were also received by the Planning Commission, and experts of the Ministry of Finance and the Planning Commission assessed the resources likely to be available. With all this information in hand, a designated group of experts carried out econometric studies, including price/income elasticity of demand for foodgrains etc., to determine the probable demand, and also attempted an assessment of the physical resources likely to be available. In the light of their judgment of the needs and available resources thus ascertained, these experts prepared a tentative framework of the plan called the plan-frame, which was published with a view to eliciting reactions from public opinion.

Meanwhile, village and district plans had been prepared by the States in response to the request made by the Planning Commission early in 1954. These tasks had been initiated in order to ascertain the needs expressed by the people and to stimulate interest in the formulation of programmes.

The state governments then prepared their programmes for development in the light of (*i*) the plan-frame and the public criticism thereof, (*ii*) the proposals of the Central Ministry of Agriculture and (*iii*) the needs expressed by the people in the selection of village and district projects. The programme in respect of each state was finalized in the Planning Commission, following discussions with the representatives of the State concerned and with the Central Ministries of Agriculture and Community Development.[27]

Implementation of plans

Administrative machinery for implementation

The over-all responsibility for the implementation of development programmes rests with the central ministries of agriculture in countries having a unitary type of government, and with the provincial or State departments of development or agriculture in countries having a federal type of government. However, in the latter case, too, the central ministries of agriculture usually try to set the pace and direction of development by giving financial assistance. In either case, there is considerable division of responsibility at the central or provincial level in regard to different phases of the development programme. Thus, work relating to agricultural research may be the responsibility of the Director of Agriculture, while development work may be the

[27] Following publication of the second five-year plan, public opinion was focused sharply on a rise in prices of food grains, and the Planning Commission took up with state governments the question of intensifying efforts to increase agricultural production generally, within the resources already allocated. The representatives of the state governments were invited to prepare proposals to that end, and revised targets in respect of each state or community were fixed following discussions between the experts of the Central Ministry of Agriculture, the Planning Commission and the state government concerned.

responsibility of another departmental head. Research work in regard to animal husbandry, forestry, fisheries is usually the responsibility of the Director of Animal Husbandry, Director of Fisheries, and the Chief Conservator of Forests respectively, who frequently handle development work as well. At the district and lower levels, each of these departments may have its own technical personnel to undertake development work, including extension work. In some cases, the over-all supervision and co-ordination of development work at the district level may be entrusted to the administrative head of the district (Deputy Commissioner, Government Agent, etc.) and there may also be an extension worker at the village level to serve the different developmnt departments.

Some problems of implementation

The degree of success in implementation is determined in large measure by the care which has gone into the timely preparation of detailed programmes (particularly blue prints for the projects), and the extent to which the development activities of various departments have been co-ordinated. In practice, most countries in the region find that the pace of implementation lags behind the plans. Thus, in Ceylon in the three years ending 1953/54, the under-expenditure in respect of the revenue budget varied from 6.9 to 14.3 per cent, and the corresponding range for the loan fund was 35 to 45.7 per cent. In Pakistan, the draft five-year plan assumes that actual expenditures will be 13 per cent lower than planned. In India, too, under the first five-year plan, actual development expenditure on agriculture was substantially lower than planned.

Such deficiencies might be due to a variety of reasons. To begin with, insufficient attention to timely working-out of detailed plans by various administrative units in the vertical plane (province, district, village), and particularly at the project level, might be important.

Another limiting factor is that of procedural delays, particularly those in connexion with the granting of financial approval. In many countries, there are long delays in obtaining financial approval for development schemes or programmes, with consequent delays in making a start on the work. Attention has already been paid to this problem in some countries and new and somewhat better procedures are reported to have been introduced.

Thus, in India, the states are required to submit to the Ministry of Agriculture early in the year detailed proposals in respect of schemes requiring financial authority from the Central Government. These are examined in the Ministries of Agriculture and Finance and comments are made available to the states. Thereafter, the representatives of each state are invited by the Central Ministry of Agriculture to a meeting, at which representatives of Ministry of Finance and Planning Commission are also present, and decisions are taken at the meeting in regard to financial authority.

In Ceylon, at the begininng of each financial year, a block grant is placed at the disposal of the Director of Food Production for development work. In the light of proposals received from each district earlier in the year, the Director of Food Production informs the Government Agent in charge of each district of the funds available to the latter in respect of various schemes. Usually, the Government Agent is free to incur expenditure on normal schemes but, where new posts have to be created or new equipment has to be procured, reference has to be made to the Ministry of Agriculture and this entails considerable delay.

In Pakistan, an Agricultural Development Committee has been set up with the Agriculture Secretary as Chairman, with representatives of Ministries of Finance and Industry as members and with the Agricultural Development Commissioner as its *ex officio* Secretary. This Committee is empowered to approve development schemes costing up to one million rupees.

A possibly even more important factor contributing to lags in implementation is insufficient co-ordination of development work at the different rungs of the administrative structure. Thus, instances are not unknown of the construction of distributory canals of an irrigation system lagging far behind the completion of the headworks. Again, because of lack of co-ordination between different development departments, etc., there might be long delays in completing the construction and energizing of tube wells. Lack of co-ordination between different departments can at times cause serious economic loss and inflict a serious setback to the development effort. Thus, if a new variety of paddy is evolved which gives a higher out-turn in terms of paddy but has poor milling qualities, its introduction to the cultivator might cause economic loss. Again, because of over-enthusiasm on the part of extension workers etc., a new chemical fertilizer may be introduced on the basis of experience in other countries but without taking into account the deficiencies of local soils. The response may therefore be disappointing. Similarly, new types of implements (say, ploughs) may be introduced on the basis of experience in other countries and without much regard to local conditions. The results may be poor and may make the cultivator doubtful of the wisdom of extension workers or agricultural departments.

These and similar instances illustrating problems in some of the countries of the region bring out three important considerations. In the first place, they indicate the need for working out appropriate procedures for the co-ordination of development work at different levels, particularly with a view to synchronizing interdependent schemes. This would, for example, help ensure that the settlement of cultivators will not lag unduly behind the reclamation of land. In the second place, procedures may have to be worked out to ensure that the responsibility for passing final judgment on the suitability of newly evolved techniques or materials is shared by the development department with the other departments concerned. In the third place, it is apparent that, in the short run, clear limits to the pace of development in certain directions may be set by the scientific knowledge available.

Some experience in co-ordinating implementation

Some illustrations of the action being taken in a number of countries are given below. In India, for instance, co-ordination at the centre is being strengthened

through the machinery of *ad hoc* interdepartmental meetings of the competent ministries and the Planning Commission. Recently, a regular high level Co-ordination Committee of the Ministries of Food and Agriculture and the Ministry of Community Development has also been set up at which the representatives of the Planning Commission are present. With a view to co-ordinating activities in the states, the Central Ministry of Food and Agriculture convenes periodic meetings of the Development Commissioners of States or State Ministers of Agriculture.

At the state level, the co-ordination of programmes is undertaken by the Development Commissioner with general guidance from a committee of the State Cabinet under the Chief Minister. At the district and sub-divisional levels, responsibility for co-ordination and implementation rests with the respective administrative heads—the Collector and the Sub-divisional Officer.

In Pakistan, the machinery of *ad hoc* interdepartmental meetings is used at the centre for co-ordinating allied activities falling under different ministries. The machinery proposed in the draft plan for the planning and co-ordination of implementation at the provincial level is as follows:

(1) A Cabinet Development Committee with the Chief Minister as Chairman and the Ministers of Development Ministries as members;

(2) A Development Board, with the Chief Secretary as Chairman, the Development Commissioner as Secretary and Secretaries of Development Ministries as members;

(3) A planning department to serve as Secretariat of the Development Board and with the Development Commissioner as its Secretary;

(4) A whole-time Development Commissioner who, as Secretary of the Planning Department, also acts as Secretary of the Development Board.

As regards the district level, it has been suggested that the various units of development departments, while remaining under their respective technical departments, should be placed under the operational and supervisory control of the district officer.

In Ceylon, co-ordination at the centre is effected through *ad hoc* interdepartmental meetings while, at the district level, implementation is the over-all responsibility of the Government Agent (the administrative head of the district) who co-ordinates the different development schemes. A district agricultural committee, consisting of non-officials as well as some officials connected with development work, assists him in this task.

In Burma, co-ordination at the centre is the task of the Economic and Social Board which is the final authority for approving new schemes, and at district and sub-divisional levels it is effected by the Agricultural and Rural Development Committees.

Progress and Revision of Plans

The lack of sufficient data or of trained staff and the newness for the region of comprehensive, large-scale economic development programmes lends a tentative character to agricultural development plans. In addition, basic changes in the situation, even in the short run, might necessitate shifts in emphasis in the programme or changes in the means of implementation. All this creates a need for a periodic stock-taking and review of tactics within the broad framework of a programme.

At present, the method usually adopted is to call for periodic progress reports (quarterly, semi-annual, or annual) from the departments concerned. Generally, these reports give an account of the expenditure incurred on approved schemes, and also some idea of the quantitative progress, i.e. wells sunk, quantities of fertilizers or seed distributed and so on. In some countries, annual reports on progress have to be presented to the legislature at the time financial approval for the next year's programme is requested.

In many cases, the information presented in these progress reports by the departments may be limited in coverage and analytical content and may not be adequate for a satisfactory review of the programme.

In India, the Programme Evaluation Organization set up in the Planning Commission consists of a Director, a unit at headquarters, three regional evaluation units and 20 project evaluation units. Hitherto, it has been submitting annual evaluation reports in regard to community development and national extension. During the second plan, the extension service will be extended to cover the entire country, and evaluation will therefore be possible for the whole field of rural development.

The need for evaluation is being felt in some other countries, too. In this connexion, two points emerge from the Indian experience. One is that what is really required is selective, intensive and purposive evaluation studies. It is not enough, for instance, to know that certain schemes in a development programme have not progressed according to schedule, while certain others have succeeded remarkably well. What is needed is intensive surveys of selected areas with a view either to ascertaining the reasons for the lags in the implementation of certain schemes (e.g. the use of improved techniques or production requisites) and to suggesting ways and means of dealing with the situation or to highlighting successful experience in these spheres. The second point is that, while an evaluation organization independent of the administrative departments can probably function more usefully, purposive evaluation is essentially a co-operative task calling for the pooling of experience by planning agencies at different levels, the ideas of specialists in different fields, the analysis of economists, etc.

Recapitulation

Planning or programming on a countrywide basis being of comparatively recent origin in the region, it is only natural that agricultural development programmes may fall short of perfection. Administrative cadres have

to be strengthened (particularly with experts) at various levels, and procedures have to be worked out for ensuring better and increased collaboration between the experts at different levels (at the centre, regional, district and village level). At the same time, procedures have to be established for seeking the co-operation in this task of the public, including the farmers, with the twofold objective of (*a*) making the programmes more realistic by incorporating in them at least some of the needs felt by the people and of (*b*) making the people plan-conscious. And, above all, planning or programming has to be looked upon as a continuing process calling for periodic appraisals and adjustments of tactics within the over-all framework of the programme.[28]

In the sphere of implementation, it is necessary to study the existing causes that contribute to lags in implementation and to evolve new and more efficient procedures for dealing with them. In particular, it would be necessary to establish procedures for synchronizing development work on interdependent schemes. Systems of checks and balances have also to be evolved to ensure that only proven techniques, materials or equipment are recommended to the cultivators. While the solutions to these problems have to be worked out in the light of conditions obtaining in each country, exchanges of experience between countries would be helpful.

[28] This attitude is reflected in the practice now current in some countries, for example, China (Taiwan and mainland), India and Japan, of preparing an annual programme in the light of the past year's experience and of any new factors that may have emerged, but generally within the over-all framework of the plan.

Appendix

Comments on stated Objectives and Targets of Agricultural Development Plans of Countries in the ECAFE Region

Afghanistan. All exports of the country are of agricultural origin. Production targets are established only for the chief export products, namely karakul pelts, wool, and cotton. Development of the country's economy will for the time being be based largely on agriculture.

Burma. Rice is Burma's chief source of foreign exchange. The chief aim of the agricultural development plan is to re-attain by 1960/61 the pre-war level of export availability of rice i.e. three million tons. Hence, about 4/5 of the planned outlay on agriculture will benefit rice production. Production and export targets have also been established for a number of other crops. The earlier economic development plan had to be revised because of the foreign exchange difficulties that beset the country in 1954. Emphasis was switched from slowly maturing, foreign exchange-consuming projects, especially building construction, to projects capable of earning or saving foreign exchange in the short period, especially in agriculture. Industrialization remains, however, the long-range economic goal.

Cambodia. The economy of Cambodia is concentrated on the production of two crops, rice and rubber. Attempts are being made, however, to diversify agriculture by study and promotion of the cultivation of new or previously less important crops. Targets of production in the plan period are not reported.

China (Taiwan). The overriding objective of the agricultural plan is to earn or save foreign exchange. Agriculture is to contribute by maintaining the exports of sugar and rice and by increasing exports of canned pineapples, pigs, fruit, tea, and timber. Agricultural development will also foster industrial development in the form of factories for manufacturing agricultural requisites previously imported, such as fertilizers and jute bags, and of industries and others utilizing by-products of sugar manufacturing. The plan does not provide for an increase in the current levels of per capita food consumption. *China (mainland).* Along with the overriding twin objectives of socialist transformation and socialist industrialization, agriculture is to be organized under a system of producers' co-operatives aimed at the eventual establishment of collective farms, for increased production of food and industrial raw materials. During the five-year period, foodgrain production is to increase by 17.6 per cent and cotton production by 25.4 per cent, with an over-all increase in the total value of production from agriculture and its auxiliary occupations by 23.3 per cent, at constant 1952 prices.

India. An integrated programme of production, imports, and exports of the chief agricultural products and requisites is presented. The plan also provides for increases in the per capita food consumption in line with the expected increases in per capita real incomes. In order to counter inflationary pressures, increased supplies of foodgrains, fats and oils, sugar, cotton, etc. are planned. For balance of payments reasons, the most of this should be produced domestically. A reserve stock of foodgrains is to be built up. Agriculture's requirements for production goods—fertilizers, implements, machinery—will provide the base for the development of industries. Rural and cottage industries will produce more consumer goods. The plan emphasizes the importance of community development and extension work.

Indonesia. A greater degree of self-sufficiency in regard to rice and maize is aimed at. For the time being, Indonesia will continue to rely largely on exports of agricultural products—sugar, rubber, copra, sisal, coffee, tea—for its foreign exchange earnings. Industrialization, based on both agricultural and non-agricultural resources, is, however, regarded as the long-run basis of the economic development of the country. Agricultural extension and community development have been assigned an important place in the programme.

Japan. The over-all aim of the general economic development plan is to achieve an equilibrium of the balance of payments. While Japan cannot achieve self-sufficiency in regard to food—e.g. imports of foodgrains are expected to remain during the plan period at the present level—the share of food in the country's total imports is foreseen to decrease from 26.8 per cent in 1954/55 to 20.4 per cent in 1960/61. Production targets have been established for all chief crops. Agricultural production is anticipated to increase by 21.6 per cent, forestry production by 9.8 per cent, and fisheries production by 25.6 per cent. Manufacture of silk is the chief export industry based on domestic agriculture. Land reclamation forms an important part of the programme in the public sector.

Korea, southern. The contribution of agriculture to the over-all objective of a balance of payments equilibrium is expected to flow mainly from the achievement of self-sufficiency in the chief foodstuffs and, to a less degree, from an increase in exports. It is hoped to achieve self-sufficiency at present per capita consumption levels in all important foodstuffs except sugar, and to increase the exports of silk, fruit, and some special crops.

Malaya. Rubber is the main agricultural product and also the chief foreign exchange earner. Rice production is insufficient to meet domestic needs. Agricultural development concentrates heavily on rubber replanting (with 60 per cent of planned outlay earmarked). Increases in rice production and diversification of agricultural economy are also aimed at. No production targets are given.

Nepal. The present agricultural areas and current yields are insufficient to provide a satisfactory diet for the population. Efforts will be made to expand the arable area and to increase yields. Agriculture will remain for some time the source of livelihood of the overwhelming majority of the population. Great emphasis is also placed on the development of transportation as a basis for further progress of agriculture and the economy generally.

Pakistan. A primarily agricultural economy depending largely on exports of cotton and jute for its export earnings. The plan aims at improving the balance of payments position by increased domestic production of foodgrains and export crops, and also by diversifying the agricultural economy. Production targets have been established for a large number of crops. A reserve stock of foodgrains is to be built up. The importance of community development and extension work has been emphasized.

Philippines. The three tasks of agriculture in the plan are: first, to attain self-sufficiency in regard to food and to meet 65 per cent of clothing fibre requirements; second, to maintain or expand the volume of exports of agricultural products—copra, sugar, abaca, etc.—while non-agricultural exports are being developed; and third, to provide raw materials for the expansion of manufacturing industries like cotton textile, abaca and coco-nuts. The general target is an increase in agricultural production at the rate of 4 per cent a year.

III. FORECASTING DEMAND FOR PRINCIPAL AGRICULTURAL COMMODITIES[29]

One of the objectives of agricultural planning in the context of general economic development is to maintain a reasonable balance between the supply and demand of agricultural products. This necessitates (among other things) an estimation of the approximate supplies of the principal commodities which must be available to avoid inflation and an increase in imports on the one hand, and on the other a heavy fall in prices and even the emergence of surpluses. The nutritional aspects of these questions are also relevant. Three aspects of the demand for agricultural products are considered separately: foodstuffs for domestic consumption, raw materials of agricultural origin for domestic industrial consumption, and foreign exchange earnings and savings.

Several methods are available for forecasting demand, but in general these methods can give only rough indications of the magnitude and direction of probable developments over the next five or ten years. The supply-demand balance in a country can be upset by imprecision not only on this score, but also (among other things) in planning in sectors of the economy other than agriculture (which may lead to rate of growth in agriculture out of line with the development of the other sectors). That balance can also be disturbed by events which cannot be foreseen when plans are made, such as fluctuations in agricultural production and in the world economy. Reserve stocks of basic foods maintained in a country offer one method of cushioning some of the effects of such fluctuations, and so assist in avoiding unexpected drains on foreign exchange reserves and in stabilizing domestic food prices. This subject is therefore covered in a separate section below.

Foodstuffs for Domestic Consumption

One important factor affecting food consumption is the trend of population. In estimating future demand for foodstuffs, some countries in the ECAFE region (e.g. Burma, China (Taiwan), southern Korea) have, for planning purposes, assumed an increase in effective demand proportionate to the population, and consumption per person of most of the principal commodities fairly steady at about present levels. In other words, changes in income generated by economic development, in prices or other factors will not affect consumption.

[29] E/CN.11/DPWP.3/L.2, a paper prepared for the Third Session of the Working Party on Economic Development and Planning. The FAO secretariat drafted the sections on foodstuffs for domestic consumption and on foreign exchange earnings and saving; the ECAFE secretariat, the sections on raw materials of agricultural origin and on reserve stocks.

In India and Japan, planners have taken income effects into account. For there is a considerable volume of evidence that expenditure per person on food will increase with a rise in income, but less rapidly than income. In other words, the elasticity of expenditure on foods as a whole with respect to income (i.e. the per cent increase in food expenditure associated with a one per cent increase in income) is positive but less than unity. Analysis of data available from urban household budget surveys in India and Japan gives income[30] elasticity coefficients of about 0.7 and 0.6 respectively for expenditure on all foods consumed in homes.[31]

The elasticities for various food commodity groups however are not equal to those for all foods. As incomes per person increase, a larger proportion of the increments to income may, for example, be spent on milk or animal products, and smaller proportions on staple foods, especially starchy roots or the less popular cereals. This indicates the importance of estimating elasticities separately for different commodity groups. The figure for expenditure on all foods in Japan is 0.6, whereas for staple foods (cereals and bread, other starchy foods, pulses) it is about 0.2, and for meat it is estimated at about 1.1. As incomes increase, the rate of increase of demand for meat will clearly be much greater than that for staple foods.[32]

Substitution within such food groups as "staple foods" or "cereals" may also occur. In four household surveys made in Japan between 1951 and 1954, income elasticities of expenditure for wheat and barley were found to be negative (ranging from minus 0.5 to minus 0.1). As against this, the elasticities in the same surveys for rice ranged from 0.09 to 0.25.[33] This difference is masked if the elasticity for the group "cereals" alone is considered, since it is a weighted average of expenditure on all cereals. This underlines the importance, when forecasting demand in the preparation of production targets, of obtaining elasticity estimates for individual commodities rather than for aggregate of commodities.

A further complication that must be mentioned is the difficulty in translating the elasticities of expenditure on various foodstuffs into the physical quantities of various foods to be produced on farms. The expenditure on food represents not only expenditure on the raw food itself but, as incomes rise, to an increasing extent on processing and distribution, including transportation and storage. For example, as incomes increase, white rice is preferred to brown, although the former is more expensive since it costs more to process. This difference in the agricultural content of expenditure on rice would not be evident from expenditure figures alone. The phenomenon is important for other foods as well. For planning purposes therefore, it is desirable to have estimates of the income elasticities of demand based on the quantities of different foods consumed. (Data on the physical quantities of all foods consumed are also necessary for appraisals of the nutritional status of the population.) Estimates giving income elasticities based on expenditure on the commodities concerned on the one hand, and on the quantities consumed on the other, are not available for ECAFE countries, but in other countries the latter have always been found to be lower. In the United States, for example, one study gave estimates of an income elasticity of 0.02 based on expenditure on grain products but one of minus 0.21 based on the quantity consumed. For dairy products, an elasticity based on expenditure was estimated at 0.32, but an elasticity based on quantity at 0.23.[34]

The figures quoted above refer to "average" income elasticities over several different income groups, that is, they assume that the elasticities are constant over all income groups. However, it is frequently found that the elasticity of demand for a commodity is different as between different income groups. A few sample household budget studies in India give a figure for elasticity based on expenditure on sugar of roughly 1.1 for low income groups and of 0.2 for higher income groups.[35] In forecasts of demand, it is therefore desirable to have approximations of the income elasticities of demand based on expenditures and quantities for different foodstuffs for the various income levels, as well as forecasts of the distribution of income among corresponding income groups. A fair approximation may, however, be obtained on the basis of the average elasticity and income estimates of a country.

It should also be noted that some of the above figures give the elasticities for expenditure on various food groups related to total household expenditure rather than to income. Since over-all planning projections are usually made on an income basis, it is desirable to collect data for elasticity estimates based on income as well. More exactly, both should be ideally based on disposable income.

Despite the complications noted, knowledge of the income elasticities of demand for foodstuffs in each country can give valuable clues as to the probable course of effective demand in the future, and (when combined with projections of population) will permit some check to be made on the consistency between planned targets for income per person, expected population trends, and food production goals.

Different approaches can be used to form an idea of these elasticities. In Ceylon, India, and Japan, for example, sample surveys of household expenditures have been made in such a way as to make possible estimates of demand elasticities for foodstuffs. Such sample surveys, if designed to give a representative picture for a country as a whole, offer the quickest way to obtain first approximations of these elasticities on a national basis for under-developed countries.

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30 Actually, total expenditure by households.

31 The Food and Agriculture Organization of the United Nations (FAO), *State of Food and Agriculture, 1956,* chapter III (Rome, 1957).

32 *Ibid.*

33 ECAFE/FAO, "Measurement of Price and Income Elasticities of the Demand for Rice and Other Cereals in the ECAFE Region" (CCP/CRI/56/15).

34 The difference is largely explained by the processing and marketing services which are included in family expenditure and for which income elasticity tends to be high. Karl A. Fox, "Factors Affecting Farm Incomes, Farm Prices and Food Consumption", in *Agricultural Economic Research,* July 1951.

35 FAO, *op.cit.*

It is possible to derive these elasticities from time series data on yearly variations of national averages of food consumption and income, but this method is difficult to apply in most ECAFE countries because of the scarcity of suitable statistical series over long periods of time in which normal market forces have not been disrupted by food rationing. However, certain estimates based on time series have been made in Japan. A third method, international comparisons on the basis of food balance sheets and average national income data, can have some value in national planning.[36]

One of the factors limiting the use of income elasticity estimates for forecasting demand is that the relative prices of all food (and non-food) commodities must be assumed to remain unchanged, which is rarely the case over a period of several years. A drop (or an increase) in the relative price of one commodity (food or non-food) would tend to encourage (or discourage) its consumption at the expense of other commodities, and to that extent would somewhat invalidate the use of income elasticities estimated from household budget studies.

Little information has been collected in ECAFE countries permitting estimates of the quantitative result of such price changes (i.e. the price elasticities of demand for foodstuffs), for the reasons given above with respect to time series analysis, but such data would be of value in planning and in determining price policies. Forecasts of demand made in advanced countries, however, where some information on price elasticities is available, usually assume stable price relationships.

There are many other factors relevant to forecasting demand for foodstuffs, any important changes in the age structure of the population, for instance, (since food consumption varies with age) or in the proportion of population in urban as opposed to rural areas, although these effects can be accounted for in part by changes in income and income distribution. A further problem meriting investigation is posed by the predominance in the consumption of rural populations of food grown by themselves. A recent unpublished study in India suggests that the income effects on these groups are similar to those in urban areas.

Agricultural planners should also bear in mind the important objective of satisfying the nutritional requirements of the people. A primary need in most countries of the region is to improve, as quickly as possible, the present unsatisfactory levels of food consumption and nutrition. Apart from the total shortage of foods of all kinds in some parts of the region, there are serious deficiencies in the nutritional quality of average diets in practically all countries of the region. Protective foods, especially protein-rich foods like milk, fish and pulses, are often sorely lacking in the diets of the vulnerable groups of the population, namely mothers and children. This is of special significance in assessing the future needs for such foods, in view of the increasing proportion of children in many ECAFE countries as a result of declining infant mortality and stable birth rates.

While increasing incomes or other improvements in the purchasing power of the people usually result in better diets, this is not always so, as experience has shown both in the ECAFE region and elsewhere. In the absence of specific measures of consumer education in sound nutrition and home economics, there is a risk of increased purchasing power resulting in nutritionally unwise food expenditure and in a consequent lack of improvement or even actual deterioration in nutritional levels. This is particularly true of newly urbanized populations and, hence, is of special significance to the ECAFE region where present efforts by the governments to speed up industrialization as a means of economic development are leading to a greater degree of urbanization. An example of such deterioration in nutritional levels is the increasing incidence of beriberi, a serious nutritional deficiency disease, as a result of the spread of small rice mills producing highly milled and polished white rice which is very attractive but seriously deficient in vitamins. Many rural people, who normally consume more nutritious home pounded rice, shift to attractive white rice when urbanized but do not consume enough of other vitamin—rich foods adequately to offset the loss of vitamins through milling rice to a high degree. Proper guidance in choosing the right kind of foods and in preparing them so as to conserve maximum nutritional value can go a long way to reduce the nutritional dangers of urbanization.

Apart from the over-riding importance of the income factor, consumer education in nutrition and home economics can be effective in influencing consumer tastes and thereby increasing the effective demand for more nutritious foods, especially when this approach is combined with school meal schemes and other supplementary feeding programmes for the vulnerable groups. Another important means of achieving this goal is the use of judiciously chosen consumer subsidies on specific foods to stimulate consumption. Subsidized sales of milk have already shown the value of such measures in creating a demand for milk in India and other countries where consumption was previously low or non-existent.

The application of income elasticities to forecasting demand assumes, among other things, that consumer tastes will remain unchanged but this is not necessarily true, particularly since consumer education can change popular habits and tastes. For example, a national policy of encouraging the consumption of wheat in partial replacement of rice has been in operation in Japan since the War and there is evidence that this policy has already been effective in spite of the negative income elasticity of expenditure for wheat and positive elasticity for rice. Agricultural planning, therefore, should take into account not only the nutritional needs of the people for different foods but also the effects of various nutritional programmes on the effective demand for those foods. Unfortunately, few data exist enabling quantitative estimates to be made of the effects such programmes have on consumer tastes and, hence, on effective demand in ECAFE countries. Nevertheless, nutritional program-

[36] Lack of space does not permit extensive discussion of these methods and their application to agricultural planning. More information may be found in the following sources: R. Dayal, "Demand for Food in the Second Five-Year Plan", in *Agricultural Situation in India*, October 1956; L. Goreux, "Long Range Projection of Food Consumption", in FAO, *Bulletin of Agricultural Economics and Statistics*, June 1957; FAO, *State of Food and Agriculture, 1956*, chapter III.

mes are being developed in increasing measure in most countries of the region, whose governments are thus recognizing more and more the need for nutritional improvement. The cumulative effect of such programmes on consumer tastes and demand is bound to be of considerable significance, especially in the long run. Further studies of this aspect of agricultural planning are urgently necessary in various parts of the region.

Raw Materials of Agricultural Origin for Domestic Industrial Consumption

The principal industrial raw materials of agricultural origin produced in the region are: forest products—including bamboo; textile fibres—cotton, jute, silk, ramie, etc.; hard fibres—coir, abaca; oil-bearing materials—copra, soya beans, groundnuts, tung nuts, sesame, etc.; starches—tapioca, sweet potato, arrowroot; rubber.

The first step in the forecasting of domestic industrial demand for locally produced raw materials of agricultural origin would be to assess the development of domestic demand during the plan period for the finished products of the existing or projected industries using these raw materials. Basic data for this estimation would include:

(*a*) A list of the industrial products derived from agricultural raw materials available locally;

(*b*) Current consumption totals and levels per head for the finished industrial products concerned;

(*c*) Projections of population, by age, sex, occupational or regional groupings, if relevant;

(*d*) Projections of income per head;

(*e*) Income and price elasticities of demand for the finished industrial products concerned;

(*f*) Information about relevant government policies, designed e.g. to restrict imports of certain goods, to promote certain local industries, to provide employment opportunities, to encourage or to limit the acreage of certain raw material crops, etc.

There is probably no country in the region for which reliable data would be available on all these points in relation to all the industrial goods concerned. Nevertheless, attempts to follow out techniques based on such of these data as exist might well be helpful to a better assessment of the various factors involved in the demand picture. A long-term forecast might throw light on a likely shortage or surplus to be expected in the near future.

In Japan and India, the demand forecast for industrial goods is based on assumptions as to the growth in income and to different elasticities of demand for various finished products. From these forecasts, the derived demand for intermediate products and raw materials is estimated. Care is taken to ensure broad co-ordination by working out a quantitative relationship between the expansion of gross national product, as regards rate and pattern, and the increases in demand for end-products which can be brought into balance with projected supplies of raw materials.

The usual practice in the countries of the region appears to be to formulate industrial targets on the basis of the agricultural supply factors, without necessarily relating them to demand as such. In other words, it is assumed, usually with justification, that demand, including export demand, is not at present a limiting factor.

Because of the inadequacy of data, of the lack of trained personnel or of the more urgent tasks facing governments, a more direct approach has often to be adopted. In some cases—India is an example—governments are promoting certain standards for the amounts of basic necessities consumed—a minimum yardage of cloth or minimum housing space per person for instance, which can provide a useful guide to the industries concerned. Broad policy objectives such as self-sufficiency, may, if due consideration is given to the question of comparative advantages, set the target of finished production, so that a concerted drive for output may be launched. Or a complex of policy considerations may determine the size of a particular industry. In China (Taiwan), for instance, the capacity of jute mills was raised to, and stabilized at, the level of domestic requirements for jute bags. Foreign exchange was thus saved by eliminating imports of bags, and the minimum acreage of land valuable for rice was used to grow jute.

If, by complicated or direct means, a schedule can be drawn up for the quantities of finished industrial goods to be produced locally during the plan period, the next stage is to calculate the quantities of the various raw materials of agricultural origin needed for the desired output of such goods. The most satisfactory way of making this calculation is to prepare tables of production functions for the various raw materials in use in different industries, showing details of inputs required per standard unit of output. Japanese experience suggests, however, that it is important to keep the production function tables up-to-date and to make the appropriate adjustments to input data for a preceding period when the efficiency of an industry is rising. Care must also be taken to avoid the assumption of a fixed input-output relationship regardless of scale, if the expansion of factories or industries is planned.

In this way, it is possible, working from the demand side, to arrive at estimates of the supplies of raw materials of agricultural origin required for industrial development during the plan period. Should limiting factors on the supply side become apparent at this stage, some modifications of the industrial targets would have to be made. The end result of adjustments back and forth will be the formulation of realistic agricultural production targets for raw material crops or products that are geared to the relevant factors in both industry and agriculture.

Foreign Exchange Earnings and Savings

Export earnings are of crucial importance to all developing countries. In highly export-oriented countries in the ECAFE region, such as Burma, Malaya, Ceylon and Thailand, exports have accounted for 20 to 60 per cent of gross domestic product in recent years.[37] Even in countries for which this ratio is much lower, exports still provide substantial funds for the import of the goods, both capital and consumer, needed for development.

[37] United Nations, *Economic Survey of Asia and the Far East, 1955* (sales number: 1956.II.F.1).

For most ECAFE countries, special importance attaches to exports of agricultural products. In recent years, exports of seven agricultural products (rubber, tea, rice, vegetable oil and oil-seeds, sugar, jute, and cotton) accounted for about half of the total export proceeds of the ECAFE region (excluding Japan and mainland China).[38] In several countries, Burma, Ceylon, China (Taiwan), Pakistan, the Philippines, Thailand and Viet-Nam, one or two agricultural commodities accounted for some 60 to 80 per cent of total export earnings.

Although the relative importance of agricultural exports may be expected to decline with the industrialization of the region, they will continue to be an important source of foreign exchange for most countries in the foreseeable future. Programmes of agricultural development in these countries should therefore put special emphasis on those commodities with the best earning prospects.

The forecasting of long-term trade prospects is bound to be difficult if only because of the multitude of relevant extra-economic factors, such as variations in the weather, changes in rates of population growth, political developments and technological innovations. Nevertheless, if there are no fundamental changes in the extra-economic factors now at work, export prospects for the region's main agricultural commodities may be broadly assessed on the basis of an FAO long-term analysis of some factors influencing international trade in agricultural products during the past few decades.[39] Among other things, that study brought out the profound influence on the growth of trade of technological developments and of national policies aiming at greater agricultural self-sufficiency.

World background

Until the depression of the nineteen thirties, the real value of world trade in most agricultural products increased fairly steadily, in line with the growth of the world economy. Since that depression, however, the growth of world trade has been very unevenly distributed over different commodities. The real value of world trade in e.g. coffee, cocoa, bananas, wood-pulp and some other forest products, for example, has increased some two or three times since 1934-38, and has expanded at a rate comparable with, or sometimes higher than, the growth of world trade in manufactured goods. At the other extreme, the real value of world trade in such products as cereals, livestock products and cotton has shown no such increase, and often some decline, compared with the pre-war years. Other products, including sugar and wool, occupy an intermediate position.

The explanation of the uneven growth of world agricultural trade appears to be as follows. Even today, the bulk of such trade consists of imports into the main industrialized countries from less industrialized countries, or from countries which, though industrialized, have a large agricultural area in relation to their population. With the depression of the nineteen thirties, however, and the breakdown of the world payments system, the importing industrialized countries have tended to become self-sufficient in agricultural products. They have raised productivity and output in their own agricultural sectors partly to save foreign exchange, partly to raise the incomes of their own agricultural populations, and partly for defence reasons. Moreover, this trend has been reinforced by the development of industrial substitutes, such as synthetic fibres (rayon and nylon) and synthetic rubber, and by the increasing substitution of steel for wood, paper packing materials for jute, detergents for soap and so on.

The net result has been that it is only for those products which the main industrialized countries cannot readily grow themselves (for climatic reasons or for lack of land) and cannot replace by synthetic or other substitutes that international trade has continued to expand rapidly, in proportion to the growth of the world economy. Where the volume of exportable supplies of these commodities has not kept pace with demand, the strength of world demand has been evident in a sharp rise in prices, as in the case of coffee.

On the other hand, world trade in commodities readily produced in the main industrialized countries, such as cereals and livestock products has on the whole tended to decline, apart from the period of acute post-war shortage. Finally, trade in products for which substitutes have been developed has tended to grow relatively slowly or to remain static. There are as yet no indications of any major change in these broad trends.

While these appear to be the main considerations underlying the recent development of world agricultural trade, there are of course many complicating factors. For example, unduly high prices such as those for some commodities during the Korean war boom appear to encourage the development of substitutes, or the drive for economies in the use of raw materials. Supply shortages, such as the post-war shortage of meat, have tended to stimulate domestic production in importing countries or production in other exporting areas. In some cases, high support prices in exporting countries also appear to have had a similar effect.

Changes in consumer demand are yet another important influence. Thus, the widespread tendency whereby rising incomes increase the consumption of sugar, fruit, etc. and reduce the consumption of cereals and other starchy foods has had its repercussions on international trade.

Prospects for the main export commodities

Recent developments and future prospects for Far Eastern agricultural exports may now be examined briefly against this general background. This analysis will concentrate on the seven commodities noted above as being most important for the region, but will also include pepper, since most of the world's supply comes from the ECAFE region, and bananas, coffee and cocoa, for which natural conditions in some parts of the region are especially suitable.

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[38] United Nations, *Economic Survey of Asia and the Far East, 1956* (sales number: 1957.II.F.1).

[39] FAO, *The State of Food and Agriculture, 1956*, chapter III.

Some indications of the evolution of world trade in these commodities may be derived from table 5, which shows the volume, average unit value (i.e. prices) and total value of trade in 1955-1956 (two-year average) compared with the inter-war average for the period 1920-1938, which is used as a basis for comparison because it included the relatively prosperous years of the nineteen twenties as well as the depression years, during which agricultural prices were unusually low.[40] It can be seen that these commodities fall into three groups. A rather marked expansion in the total value (in real terms) of world trade is evident in the case of natural rubber and of pepper (and also of the less important commodities from the standpoint of the present trade of ECAFE countries—bananas, coffee and cocoa). A more moderate increase is apparent in the real value of trade in tea, sugar, edible oils and oil-seeds, jute and rice. There was actually a decrease in world trade in cotton.

The table then compares the current level of trade in these commodities in the world as a whole and in the ECAFE countries with the period immediately before the war, and also shows the share of the ECAFE region in world trade. It is evident that, while for rubber, jute, tea, pepper and to a somewhat lesser extent for vegetable oils and rice, the ECAFE region has held its own with competing exporters, in the case of all other commodities it has either not shared in the general expansion of world trade or has shown a much more proportionate decline than world trade as a whole.

An appreciation is given below of the factors which appear to have influenced the pattern of trade in these commodities, and which may be expected to do so in the future.

Bananas, coffee, cocoa, rubber, pepper

For bananas, coffee, cocoa and pepper, the strength of the demand in recent years is apparent from the fact that the growth in the real value of world trade has been due both to an increase in the volume of trade but even more to a marked rise in prices (average unit values), which indicated that world demand has grown more rapidly than exportable supplies.

Coffee, cocoa and bananas are not at present major export products of ECAFE countries.[41] The region's modest 5 per cent share in the pre-war world coffee trade shrank to 1 per cent, owing to war destruction of Indonesian plantations, while the effects of new post-war cocoa plantings in Asia have not yet begun to appear. As for bananas, a perishable product highly dependent on an efficient marketing and transportation system, the Far East's pre-war trade share of 6 per cent was reduced to 1 per cent, a change reflecting mainly post-war population increases and concentration on rice and sugar growing in China (Taiwan), Asia's main exporter of this

[40] The data for average unit values and total values of trade are given in real terms, that is, they have been deflated by a United Nations index of all products entering international trade, in order to give a more accurate picture of the purchasing power of these agricultural commodities.

[41] More information on the trends in world trade in these three commodities can be found in FAO, *Prospects for Latin American Exports of Agricultural Products, 1957* (FAO/57/4/2856) and also in FAO, *State of Food and Agriculture, 1956*, chapter III.

Table 5.

COMPARATIVE GROWTH OF TRADE IN ELEVEN AGRICULTURAL COMMODITIES

Commodity	Indexes, 1955-1956, (1920-1938=100)			Real value[a] of trade, 1955-1956, as percentage of world trade, 1934-1938		Exports of ECAFE countries[b] as percentage of world trade[c]	
	Volume of trade	Average unit value in real terms[a]	Total value of world trade in real terms[a]	World trade	ECAFE exports	1934-1938	1955-1956
Bananas[d]	146	183	262	245	37	6.0	1.0
Coffee[d]	144	175	253	331	107	5.0	2.0
Cocoa beans[d]	127	192	245	265	100	1.0	1.0
Natural rubber	262	74	198	179	172	78.3	75.4
Pepper	127	134	169	192	192	99.2	99.5
Tea	117	112	130	132	133	85.4	86.0
Sugar	133	89	129	140	64	29.5	13.5
Vegetable oils and oil-seeds	122	98	121	106	93	24.7	21.7
Jute[e]	108	99	106	144	148	95.4	98.6
Rice	75	142	105	95	82	75.3	65.7
Cotton	82	95	78	94	46	17.7	8.7

Source: Information furnished by the Food and Agriculture Organization of the United Nations.

[a] Current values (average prices), deflated by United Nations index of average unit value of all products entering international trade for a more accurate picture of the purchasing power of these commodities.

[b] Excluding Afghanistan and mainland China.

[c] In terms of total value of trade in each commodity.

[d] Not a major export product of ECAFE countries.

[e] Trade between India and Pakistan excluded.

commodity before 1939. Since trade in these three commodities has been found to show a close relationship with the growth of world economic activity, the prospects for future demand appear relatively favourable.

For pepper, the Far East's share in world trade has remained the same. The region has retained its 99 per cent monopoly of this commodity's commercial supply. The real value of world trade in pepper (black and white only) was closely related to the level of world industrial activity, though in 1936 there was a sharp break to a lower level of trade considered in relation to the level of world economic activity. The relationship then established persisted until 1953 in spite of a marked decline in the volume of world trade. From 1950 to 1952 real prices were five to six times the inter-war average. In 1954, 1955 and 1956, however, the volume of trade increased and at the same time there was a more than proportionate fall in prices, probably due to the possibly excessive increase of world absorption during 1954 of about 50 per cent over 1953.

The price of pepper, always a product of high income elasticity of demand, has become even more fluctuating in post-war years, since its use is now mainly limited to spice consumption. It has been largely replaced by DDT and similar products as an insecticide and by cold storage in furriery. Nevertheless, world pepper consumption has been increasing gradually since 1946, especially in the United States. There seems to be ample room for a further increase, and the encouragement of black pepper production has received due attention in the two Indian five-year plans. After the destruction of the Indonesian plantations during the Second World War, India emerged as the main supplier of this commodity, with Sarawak and Indonesia slowly increasing in importance. Apparently the main economic problem of pepper-growing will be to keep costs of production low enough to tide cultivators over periods of price slumps.

Natural rubber is the only product in this group which owes its growth in total values to a marked increase in volume. Average unit values have actually decreased. Asian countries have retained most of their share of the world trade in natural rubber. The slight decline is due to the post-war rise of production in Africa.

In the inter-war period, the volume and also, to a lesser degree, the real value of world trade in natural rubber showed a fairly close relation to the world index of manufacturing production, with the exception of 1925-1927, the years of the Stevenson restriction scheme, when values were unusually high. After Second World War, this relation was continued as regards volume, but average unit values (in real terms) fell to a much lower level than before, relative to world economic activity. They staged a partial recovery at the time of the Korean boom. The growing consumption of synthetic rubber appears to account for most, but not all, of this decline in prices.

Although consumption fluctuates with the level of activity in the automobile and other rubber using industries, the long-term trend in consumption is definitely upward. Since 1953, there has been little production of natural rubber in excess of consumption. At the same time, synthetic production is growing. In 1956, natural rubber accounted for 63 per cent of total consumption of new production as against 75 per cent in 1950.[42]

The main recommendation of the Blackman Report[43] appears applicable to the natural rubber industry in all ECAFE countries. The maintenance of future foreign trade earnings from natural rubber depends on increasing output, on improving quality and lowering production costs, with a view to increasing the competitive strength of natural rubber vis-à-vis the synthetic product. Blackman suggests that, for Malaya, production costs must be low enough to permit sales of natural rubber at 60-75 Straits cents a pound.

Tea, sugar, vegetable oil and oil-seeds, jute, rice

A second group of five major Far Eastern products has shown only a moderate growth in total trade value. The region's share in the world trade in tea has been maintained since before the war. Neither the volume nor the value (in real terms) of the international trade in tea showed any indication of real expansion from the depression of the nineteen thirties until 1953, despite the expansion of the world economy in that period. In 1954 and 1955, both real prices and the total value of international trade increased sharply. Price increases in recent years were probably due to external factors such as dock strikes, the low level of United Kingdom stocks, late arrivals and, to some extent, speculative activities. Since derationing in 1952, total consumption in the United Kingdom, (the main importer) has increased to above pre-war levels and now appears to have reached a stage where further expansion is likely to be due mainly to population growth. The same is true of Australia and New Zealand. The elasticity of demand for tea in relation to price, and especially to income, is low. In the United States and Canada, consumption has failed to expand since 1954, despite population growth and vigorous promotion efforts. The greatest percentage increase has taken place in some of the Asian producing countries, notably India, Pakistan and Japan, but here consumption is completely covered by domestic production. More promising markets, especially for common teas, may be developing in Near Eastern and African countries, where tea consumption increased by more than 40 per cent from 1950 to 1955. Abstinence from alcoholic beverages, high coffee prices, and the relative cheapness of tea on the one hand, and higher standards of living on the other, were strong incentives to greater tea consumption. On the whole, world production and consumption of tea have been fairly well balanced in recent years and neither over-production nor shortage are imminent dangers, but a moderate increase in trade can reasonably be assumed for the future.

In the case of sugar, the region's share of the world market has shown a marked decline, mainly due to the shrinking of Indonesian supplies, while Latin America and western Europe have increased their exports. On the whole, sugar has been a commodity of the type for which the growth of trade has lagged behind the growth of consumption, largely because of the increased domestic production in importing countries.

[42] FAO Committee on Commodity Problems, twenty-eighth session.

[43] *Report of the Committee of British Experts under Prof. G.E. Blackman,* appointed by the Rubber Producers' Council in 1956 to report on the Malayan rubber industry.

In contrast to the pre-war period, the post-war expansion of production was matched by increases in consumption, which were aided by derationing and by an increased demand for sugar in international trade for areas with a large population (e.g. the USSR and India). Demand for sugar has also been sustained by generally rising incomes in the highly developed countries. This steady rise in consumption has prevented a serious decline in prices. Studies on the economic factors affecting consumption lead to the conclusion that, assuming a continuation of the current trends in population and per caput real income, and retail prices at 1953-56 levels, world consumption of centrifugal sugar will approach 45 million tons by 1960—some 7 million tons more than in 1955—if supplies are available. However, international markets will be affected, not only by supply conditions, but also by any effort on the part of India, the Soviet Union and the eastern European countries to meet their growing requirements by increasing domestic production.

The real value of international trade in the main vegetable oils and oil-seeds,[44] (which have been grouped together in view of a large element of interchangeability) showed a fairly regular relationship with the level of world manufacturing production in the decade after 1920. This relationship reappeared from 1934 to 1938, but at a lower level. After Second World War, there was a further downward shift in the level of world trade in relation to world economic activity, and since 1952, the relative level of trade has shifted even lower, owing to a large extent to the rapid war-time expansion of domestic production in the United States, formerly one of the largest importers, and to the development of detergents.

Although the real value of world trade in these products has expanded somewhat since pre-war years, net exports of ECAFE countries have actually decreased. Exportable supplies of oil-seeds in the region were reduced owing to the slow recovery of production and to the increased domestic consumption in the producing countries of the region. On the other hand, production for export expanded rapidly in Africa.[45] The growth in world production and consumption of edible and hard vegetable oils has not been accompanied by a commensurate increase in international trade in these products. The upward trend of consumption in the producing countries has been one major reason for this development.

The world pattern of the use of oils and oil-seeds has been changing radically since the war. Although their use in margarine has expanded, in soap it declined sharply from 1951 to 1956 owing to the rapid development of synthetic detergents. While the demand for soap raw materials does not seem likely to increase, the long-term demand for manufactured edible products and feed will probably continue to expand slowly with population growth. Per caput consumption of edible fats and oils in the traditional markets in industrial countries is already high and not likely to expand rapidly.[46] It is difficult to assess the future import requirements of developing livestock industries in Far Eastern countries, and also, with the information available, to evaluate future trade possibilities with the centrally planned economies of eastern Europe, the Soviet Union and mainland China. A main prerequisite for the expansion of trade in oils and oil-seeds will be to improve the marketing of these commodities along the lines recommended in the FAO and ECAFE publications referred to above.

Both the volume and value of international trade in raw jute were rather closely related to the level of world industrial activity during the inter-war period, when the value of trade was appreciably higher than under the usual relationship. Since the Second World War, the level of international trade (excluding, for the sake of comparability, the trade between India and Pakistan) has been lower than before in relation to world industrial activity.

As a result of conflicting trends, the use of jute has remained stationary over the last forty years. While the general increase of agricultural production has tended to strengthen the demand for jute bags, consumption has been adversely affected by the development of bulk handling and standardized pre-packaging for retail trade, and also by the creation of cheaper or more readily available substitutes such as paper. The expansion (and possibly even maintenance) of consumption seems to depend on the development of uses for jute outside the packaging field in the more developed countries, and on increased jute packaging in the less developed areas. With the general development of agricultural production and trade in the Far East, such an increase is already taking place. To increase the use of jute in western countries, it would be necessary to secure a reasonable degree of price stability in order to offset one of the main advantages of paper over jute.[47]

Rice is the only export commodity in this group which owes its slight expansion above the 1920-1938 level to a strong rise in unit values. The region's share in world rice exports fell as a result of a radical change in the structure of the world rice trade. Rice output and exports from non-Asian countries (Brazil, Egypt, United States) rose sharply before the Far Eastern paddy areas recovered from war destruction. After 1952, the increase of rice production largely took place in the rice importing countries of the region, who were also able to switch consumption to other cereals because of their relatively lower prices.

The shift of Far Eastern importing countries, especially India and Japan, to wheat, barley and maize imports in lieu of rice was caused initially by the rice shortage in early post-war years. But, even after 1952, when rice supplies were mounting in exporting countries, importers continued to prefer alternative cereals and especially wheat, since wheat prices were lower. Even

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44 Coco-nut, groundnut, soya bean, palm kernel, palm oil and olive oil, together with the corresponding oil-seeds.

45 United Nations, *Marketing of Major Edible Oils (Liquid and Oil-seeds) in the ECAFE Region.* (sales number: 1956.II.F.5).

46 FAO, Committee on Commodity Problems, twenty-eighth session: "Report of *Ad Hoc* Working Party on Coconut and Coconut Problem" (FAO/57/1/483, 21 January 1957).

47 FAO, Commodity Series, Bulletin No. 28, *Jute: A Survey of Markets, Manufacturing and Production* (Rome, 1957).

after the gradual reduction of rice export prices in late 1953, the ratio of import unit values of rice to other grains showed little change.

The low proportion of world trade in rice to production contains a continuous threat to the stability of world markets. Relatively small changes in the internal supply or demand in a few countries can bring about large changes in the demand for imports or the supply of exports. Rice stocks, even at their highest level, were very small in relation to world production, though large in relation to world trade. The present relatively low level of rice stocks prevents them from acting as a powerful stabilising factor. On the other hand, the post-war growth in the consumption of other cereals, particularly of wheat, in predominantly rice-eating areas tends to reduce the range of fluctuations in rice markets.[48]

Cotton

For raw cotton, trade volume as well as unit values are below the levels of the inter-war period, which indicates a contraction of demand in international trade. Demand for cotton has been reduced by the increasing substitution of synthetic fibres, and also by the increased production both of cotton fibre and cotton textiles in countries which formerly imported manufactured goods from industrialized countries, which in turn relied on imports for their raw materials. New cotton-processing industries have been developed, notably in India and Pakistan. The Far Eastern share in the cotton trade has fallen to about half its pre-war level as a result of increased manufacturing and consumption in the region. Despite increasing economic activity, international trade in cotton showed little sign of expansion, and world consumption registered a relative decline as compared with cotton's partial substitute, rayon, during the years 1952-1955.

General considerations regarding prospects

The foregoing analysis has indicated the kind of relationships prevailing over the last four decades between world economic activity and international trade in certain agricultural products, and has examined some factors underlying these relationships. This study suggests that the future demand in international trade will be most buoyant for those products that have recently expanded with the world economy. However, a growing world demand and an expansion in markets in line with the general growth of the world economy does not mean that the products concerned are immune to a marked fall in price if supplies increase more rapidly than demand, or if there is a sudden contraction of demand owing e.g. to a general depression, or to factors influencing only one commodity. It does appear, however, that prospects are generally more favourable in respect of products that have expanded with the world economy, that an over-supply leading to a fall in price would be likely to be temporary in these cases, and that a recovery would be expected as import demand again catches up with exportable supplies. For a commodity where world import demand is not expanding, this recovery would clearly be less likely.

[48] FAO Committee on Commodity Problems, twenty-eighth session, "Major Developments in the World Agricultural Commodity Situation", pp. 15-16.

FOREIGN TRADE IMPLICATIONS OF NATIONAL PLANS

When formulating their agricultural plans, countries have given consideration not only to export markets for their agricultural products, but also to the import aspect of foreign trade in these products. Many countries of the ECAFE region have indicated their intention of meeting part or all of their present import requirements for certain agricultural commodities by increasing domestic production. Ceylon, India, Malaya, Indonesia and southern Korea, for example, plan to increase domestic grain production; southern Korea and China (Taiwan) plan to reduce or eliminate their present deficits in edible oils; Burma, Ceylon and southern Viet-Nam expect to meet more of their needs for sugar from domestic production and many more examples could be cited.

Several considerations explain the general trend towards self-sufficiency in agricultural products evident in the plans of most countries of the region. One is the desire to economize on foreign exchange, which is badly needed for financing the import of capital goods for development. Another is the desire to make better use of agricultural resources by diversifying as well as expanding agriculture, a process which can result in higher and more stable incomes for cultivators and in improved crop rotation and farming practices. A third is a desire for greater independence from the vagaries of international markets in agricultural products, which are subject, not only to wide fluctuations in prices and supplies available, but also to extensive disruptions in times of political unrest.

The extent to which efforts towards self-sufficiency in agricultural products should be carried depends on the particular product under consideration, on the nature of the agricultural resources of each country, and on numerous other economic factors. It may be more costly in the short run for a country to produce all of its own requirements of a particular commodity rather than rely permanently on imports for all or part of its needs, but, if climate and soils are suitable for the crop, this handicap should disappear as cultivators gain experience and marketing is better organized. If, however, the crop can be grown only with difficulty and at high cost or if other crops for which there are outlets can be grown more economically, persistence in encouraging domestic production is likely to be unrewarding. In general, natural conditions appear to furnish the best guide in rapidly developing countries.

Consideration should also be given to the possible effect of the import policies of some countries on the exports of others. As a somewhat hypothetical illustration of this question, an effort has been made to compare the intentions of governments in the ECAFE region (excluding Afghanistan and mainland China) in regard to rice imports and exports in the year 1960, as stated in their development plans or other public policy statements, as of the last half of 1956. (It is known that several countries have revised their plans or intentions since that time). These indicated that the exporting countries, Burma, Cambodia, China (Taiwan), southern Korea, Thailand and southern Viet-Nam, hoped to export between 5.8 and 6.4 million tons of rice in 1960, while

countries which have been importing in recent years (British Borneo, Ceylon, Hong Kong, India, Japan, Malaya, Pakistan, Philippines, Singapore) intended to import between 2.6 and 3.5 million tons. If these plans and intentions were to be fulfilled, net exports from the region in 1960 would be approximately 2.3 to 3.8 million tons.

The countries listed accounted for about two-thirds of the world trade in rice in recent years, and the net trade in rice of the region with the rest of the world since 1950 has fluctuated between exports of 0.5 and imports of 0.8 million tons. But if the stated export intentions were to be fulfilled, markets would have to be found outside the region in 1960 for roughly 2 to 4 million tons of rice above recent levels—an unlikely development in the light of long-term trends in the world trade in grains, unless prices fall drastically to a point where rice could again compete with wheat, or could be used economically for livestock feed.[49]

This somewhat hypothetical exercise serves only to provide some indication of the desirability of co-ordination between countries in their agricultural planning, particularly in regard to import/export intentions. The FAO Committee on Commodity Problems and its various commodity sub-committees offer one forum for discussion. Another approach might be to convene special working parties of experts on a regional basis to discuss the interrelationships of national plans, perhaps in conjunction with, or immediately before, the biennial Regional Conferences of FAO. Discussions could be based on the present flow of information reaching FAO and ECAFE supplemented by more detailed country reports on the production, consumption and foreign-trade implications of national agricultural programmes and policies, including forward estimates of agricultural imports and imports.

Reserve Stocks

A further question to be considered when assessing the future quantities of agricultural commodities likely to be required is the extent to which provision should be made for holding reserve stocks of basic foods. This question arises mainly in countries which are regular importers of basic foods or are close to self-sufficiency in respect of such foods. The desirability of reserve stocks is being increasingly recognized in the region and is reflected in the plans of several countries.

Inflation

In the formulation of an agricultural development plan, every effort should be made to forecast as realistically as possible the development of domestic consumption demand for basic foods, along the lines indicated above, and to make provision in the planned programmes of production and/or imports for future demands to be met year by year. Unfortunately, the course of actual events may not follow the plan very precisely in respect of the magnitude and the timing of developments affecting demand and supply.

Food planning is made more difficult in underdeveloped countries by the increase in the rate of capital expenditure on large-scale projects of economic development. This expenditure stimulates a demand for food to an extent which cannot yet be forecast very precisely. Even relatively small and temporary imbalances between the quantities being demanded and the supplies coming forward are sufficient to cause serious price instability—as a number of ECAFE countries have experienced—or even inflation, with a consequent setback to development. The use of reserve stocks to counter inflation could therefore be of great importance for the successful implementation of the plan. India, for instance, in noting that the advances under the first five-year plan were achieved without any serious inflationary trend, has stated that the imports of wheat from the United States in 1951 and 1952 on concessional terms made a significant contribution in bringing about this result.[50]

Crop failure

Reserve stocks can also help meet emergency shortages of supplies due to crop failures. Moreover, if adequate provision for stock-holding exists, the reserves can be built up in a period of surplus supplies in order to help maintain a stable price to producers.

Crop insurance

Reserve stocks may have a role in facilitating the establishment and operation of crop insurance systems. Whereas the purpose of a crop failure reserve is to move food to stricken areas and to prevent or limit a rise in food prices, the primary purpose of a crop insurance scheme is to compensate individual farmers against severe loss of income from crop failure. The farmers are usually compensated in money from a fund built up from payment of insurance premiums and supplemented in some cases by government subsidies. For a minor or localized crop failure, the fund may be able to meet the claims for compensation in money, and small releases, through trade channels, of grain from the crop-failure reserve will be sufficient to stabilize prices. For a severe and widespread crop failure, especially one occurring in the early years of a crop insurance scheme, before insurance premiums have built up a sizable fund, the resources of the scheme may be inadequate to satisfy in cash the indemnities claimed by farmers. Since, in such a case, the farmers affected are likely to be actually short of food, there would appear to be a case for co-ordinated management of the insurance scheme and of the crop-failure reserve so that indemnities could be paid partly in cash and partly in reserve food stocks. If no crop-failure reserve is held, consideration might be given to the establishment of a special crop-insurance reserve of foodgrains, by importation or domestic purchase, providing, among other things, for the payment of insurance premiums in kind in certain cases.

Reserve stocks of basic foods should help not only to counter crop failure or inflation and to facilitate economic development but also help to make it possible to set up crop-insurance schemes where lack of initial

[49] See discussion above, and also FAO, *State of Food and Agriculture*, 1956, chapter III.

[50] Statement by the Representative of India at the 22nd Meeting of the FAO Consultative Sub-Committee on Surplus Disposal, February 1956.

capital is the main limiting factor. Japan is the only country in the region which operates a crop-insurance system. Other countries are interested in such systems, but some are deterred by the risk of a heavy financial liability falling upon the government in the early years. A crop-failure reserve is undoubtedly a financial burden, but possibilities exist at present of establishing or replenishing such reserves on special terms by agreement with the United States Government. This aspect of the use of food reserves requires further study in the context of economic development planning in view of the important effect of crop-insurance in limiting the severity of falls in farmers' incomes as the result of natural hazards.

Size of reserves

The size of the reserve stocks that should be held to provide for the above uses in any particular country may be a matter of experience, judgement or policy. The level of stocks required to deal with crop failures will usually be determined in the light of experience, fortified by an historical study of national crop acreages and average yields.

It will not be necessary to hold stocks sufficient to meet in full any selected "normal" level of shortfall anticipated, let alone the rare crop failure of abnormally large dimensions. Stock provision would generally be made to cover consumption during an emergency period while additional supplies were being obtained by importation. The length of the emergency period should not be underestimated, however, in view of the possibilities of delay in gauging the real extent of a shortage, in placing orders and in completing shipment. The size of the reserve stocks required may be reduced as countries develop more effective means of internal transportation and of collecting and disseminating information on crop output prospects, local prices, existing stocks, etc.

The amount of reserve stocks to be held against sudden increases in consumption demand, stimulated by development programmes, cannot be precisely calculated. In practice, reserves established to cover crop failure or the operation of a crop-insurance scheme could, except possibly in special cases, be drawn upon in the event of an unexpectedly rapid expansion of consumption and replenished by prompt import orders.

As to the appropriate size of a reserve, the Indian authorities have stated:[51] "Considering that foodgrain consumption in India is now of the order of 65 million tons every year, that the Indian population is rising at the rate of 1.25 per cent, that increased income resulting from the economic activities will raise the demand for foodgrains which form the major article of diet in the country, a grain reserve of about 3 to 5 million tons could not be considered excessive." This represents a rate of reserve stocks to total foodgrain consumption of 4.5—7.5 per cent. The development plan of Pakistan includes the building up of a reserve of one million tons of foodgrains, which gives a ratio to total consumption (about 12 million tons) of approximately 8.3 per cent. No data on this point in relation to other countries of the region are available. In many countries, the level of reserve stocks planned will be largely determined by such factors as the availability of storage, shipping, external financing, costs and the possibility of purchase on concessional terms.

The fact that relatively large quantities of storable agricultural commodities held in the United States can be acquired on special terms by agreement with the United States Government may constitute an inducement to the governments of countries where consumption levels are low and development expenditures are being rapidly increased to take steps to support their development programmes by establishing national reserves of certain basic foods. On the other hand, in some cases it may be an inducement not to hold very large stocks, since supplies may be obtained from the United States as the need arises. In any case, the running costs of government reserves, the costs of building additional storage facilities and the administrative problems of location, turnover, distribution and replenishment must be carefully examined. The importance of a soundly planned administrative framework for any reserve scheme cannot be over-emphasized.

For a number of years, some food-importing countries have had to maintain reserve stocks of foodgrains under government control as part of their food distribution systems. Special national reserves with outside aid, for the support of economic development programmes, have recently been set up by the Governments of India and Pakistan. External aid in the form of foodgrains procured on concessional terms has been obtained in recent years by the Governments of Afghanistan, the Republic of China, Indonesia, Japan, the Republic of Korea and the Philippines, but this was not necessarily for purposes of establishing national reserves.

After consideration of the factors governing the demand for agricultural products to which attention has been drawn, together with statistical compilations based on the conclusions reached, the planning authorities of a country would be able to make a preliminary list of what they would like to achieve in agricultural output during the plan period.

In proceeding from this point to the definition of production targets for domestic agriculture, the planning authorities would have to examine and decide on some important general questions, if they had not done so before, relating to agriculture, trade and finance. These might cover the following points. In which branches of agricultural production do the comparative advantages of the country lie? What is the productive capacity of the agricultural resources concerned? To what extent, and by what means and investments, could these resources be developed during the plan period so as to contribute to the supplies of products desired? What are the alternative uses to which the agricultural resources might be devoted, and with what advantages and disadvantages to the national economy? To what extent and at what probable price levels could certain of the needed agricultural supplies be obtained by importation? To what extent could agricultural imports be financed by exports or foreign loans or aid or payments concessions, in competition with other needed imports? What bearing do the development plans of other countries have on the

[51] *Ibid.*, para. 2.

foreign trade prospects? To what extent should considerations of comparative advantages in agricultural production be sacrificed to the desire for national self-sufficiency in food supplies? What are the factors limiting agricultural development along the desired lines, and to what extent could they be overcome? What are the factors limiting agricultural development along the desired lines, and to what extent could they be overcome? What financial or other resources would be required for the agricultural development and to what extent could they be provided from the total funds estimated to become available for investment, in competition with the needs for investment in, say, manufacturing industries, transportaion, public works and social services?

Some of the questions relating to foreign trade prospects have been explored above in the section on foreign exchange. Some agricultural questions have been examined elsewhere in this section.

IV. CRITERIA AND TECHNIQUES FOR SELECTION OF BEST TECHNICAL MEANS FOR AGRICULTURAL EXPANSION[52]

Possibilities and relative Advantages of various Technical Means for Agricultural Expansion

One of the principal problems in agricultural planning is that of selecting the best combination of the technical means available to achieve agricultural expansion in the directions desired. This selection involves consideration of a great number of interrelated problems, both technical and economic. It may facilitate discussion if the possible technical means are divided (rather arbitrarily) into three categories:

Expanding the area under cultivation. This category includes bringing into cultivation lands that are at present unused, by reclamation, irrigation and drainage; increasing the total acreage cropped annually, by irrigation and drainage of existing cultivated lands to permit multiple cropping.

Increasing yields. This entails improvements of the soil on existing cultivated lands, and of plant and animal varieties and of plant and animal health. This category includes such means as supplementary irrigation and drainage, soil fertilization, weed control, varietal improvement, and insect and disease control.

Improving cropping patterns and farming systems. This includes the expansion of particular crops (old or new), improved crop rotations, the extension of mixed farming with animal husbandry, mechanization, the consolidation of holdings, co-operative farming, and improved farm management.

There are close interrelationships among and within the three groups. Those means listed in the third category differ from those in the first and second in that they do not aim directly at creating or changing the physical or chemical nature of soils, plants and animals, but rather at organizing them in the best patterns in order to increase productivity. On the other hand, improved crop rotations and mixed farming can contribute greatly to the conservation and improvement of soil fertility. Moreover, while an increase, by irrigation or drainage of existing cultivated land, in the area cropped annually is equivalent to the creation of new land in economic terms, it is only a means for increasing yields per acre from the standpoint of the land itself.

Higher yielding varieties, too, require heavier fertilization, but the full value of fertilizers is realized only when applied to improved varieties; weed control becomes more important with better varieties; mechanized harvesting is frequently impossible until varieties which shatter less easily have been produced; livestock breeds with a high biological capacity can yield well only if they are fed better than the scrub animal, while a response to better feeding will be limited unless the inherent productive capacity is raised; both upgrading of breeds and improvement in feeding will be largely wasted unless epidemic diseases are brought under control.

On the other hand, one means can be employed in place of another to contribute to increased production. It is possible, for example, to choose between improving the soils on existing cultivated lands or opening up new lands for cultivation. In either case, it is possible to increase production, but the comparative advantage depends upon the conditions under which the selection is made.

These examples give some indication of the relationships between the various technical means which must be kept in mind in making a selection among them in the natural setting of agricultural production based on biological processes of plants and animals.

General considerations in selecting technical means for agricultural expansion

It is important clearly to establish the desired objective at the outset. In the present case, the objective is agricultural expansion. But is it an increase in total production, or per man, or both? Is it an increase in physical production or in value? What type of farming or products will be envisaged to attain that end? The selection of the groups or types of technical means will be influenced by the circumstances in each case.

To take one example, a country may encourage its farmers by subsidies to grow more cereals at the expense of diversification in order to reduce imports. For this purpose, the country may undertake large-scale reclamation and irrigation schemes or heavier fertilization, which would not raise the productivity of labour as much as an increase in emphasis on changes in the cropping

[52] E/CN.11/DPWP.3/L.3, a paper prepared for the Third Session of the Working Party on Economic Development and Planning by the secretariat of the Food and Agriculture Organization of the United Nations.

pattern and improvements in farming systems. Again, however, there are inter-relationships among the various means and any one means may contribute to both total and labour productivity.

It is also clear that the formulation of the objective presupposes a certain type of farming or products to be determined in the light of prevailing conditions and this, in turn, will influence the types of technical means to be adopted.

In Asia and the Far East, in view of the low productivity of agriculture of that region in general, the objective of agricultural expansion should be increased production both in total and per man. In the short run, the emphasis might differ from country to country according to the circumstances but in the long run it will generally be on increasing productivity per man as a contribution towards raising per capita incomes.

In addition to making a maximum contribution towards attaining the ends in view, technical means should be selected which will be compatible with the agricultural environment. It is difficult to specify the relative advantages of different technical means without reference to the conditions in which the choice is to be made and without quantitative data from appropriate experiments under the same or similar natural conditions. For example, new plant varieties selected must be adaptable to climate and soil conditions. The introduction of irrigated farming over a large area, too, presupposes an adequate and dependable supply of water. In consequence, a sound basic survey of soil and water resources is necessary in order to determine the extent of the resources available.

The social and economic environment must also be compatible with the adoption of improved techniques. Perhaps most important of all, the cultivators themselves must be willing to adopt new techniques or crops. The institutional structure—systems of land tenure, taxation, credit, marketing—must therefore be such as to give adequate incentives to cultivators, i.e. to allow them reasonable profits for their additional investments of work or money and for the risks involved in trying out new techniques or crops. In addition, government organization and services must be efficient enough to take the initiative in spreading a knowledge of new techniques and materials and be able to implement programmes continuously on a fairly long-term basis. These aspects are considered in more detail in section VI below, (incentives and institutional factors influencing the rate of agricultural expansion).

Another factor that would enter into a choice between technical means is their relative profitability. On the one hand, cultivators will be more inclined to adopt those new methods which offer the greatest additional benefit, and this can be gauged only by careful research in farm management. On the other hand, the effects of different projects and programmes must be looked at from the national point of view as well, e.g. to see what their implications are on national income and the balance of payments. The latter aspect is usually evaluated by the techniques of social benefit-cost analysis, which are discussed later in this section. In the long run, however, there may not be any conflict between the cultivator's and the nation's points of view.

With these considerations in mind, the discussion below will consider separately each of the groups of technical means enumerated above.

Possibilities and relative advantages of expanding area under cultivation

Despite the old civilizations, dense population and intensive agriculture of the region, there are still many parts with very substantial areas of potentially arable land not now being cultivated. British Borneo, Burma, Cambodia, Laos, Thailand and Viet-Nam, for instance, possess an abundance of reclaimable land. Even in India, where a good deal of reclamation has been undertaken in recent years, areas running into millions of hectares are still left idle because of malaria or deep-rooted grasses which can now be eradicated by modern machinery. In Ceylon, an area approximately equal to that at present under cultivation awaits development in the dry zone.

There are also great opportunities, through better control of water, of increasing the number of acres planted every year. In spite of the fact that the region is abundant in water resources, a large part of agricultural land must be left idle half the year for lack of irrigation. For example, in India, Ceylon and Thailand, only some 5-10 per cent of the average annual run off of the rivers is being utilized, and in Burma less than 1 per cent. According to a survey which FAO is conducting on the Ganges-Brahmaputra basin, it is believed that the water resources in this area are such that practically the whole of the present land under cultivation can be put under perennial irrigation. This means an addition of a vast area of land for cultivation by making possible more double-cropping or even triple-cropping in the same area.

Under what conditions is the expansion of cultivated area to be preferred? Large-scale reclamation or irrigation usually requires heavy investment, and therefore has a higher initial cost than other means of increasing production. However, where agriculture is already operated very intensively and population pressure is high, and where there are still free lands of fairly easy access, the opening up of new lands for cultivation would seem to be the most attractive means for agricultural expansion. A report of the mission from the International Bank for Reconstruction and Development to Japan in 1955 indicates that additional inputs for the improvement of existing cultivated lands are likely to produce proportionately smaller benefits than land reclamation. On the other hand, in the densely populated area of the Ganges-Brahmaputra basin, covering portions of India and Pakistan, it would apparently be more advantageous to increase the annually planted acreage by introducing more double-cropping or even triple-cropping by irrigation and drainage.

These projects, despite heavy initial investments, provide the physical basis for further agricultural development, and may therefore be less costly in the long run than other means of increasing production. Furthermore, the heavy investments and the resultant large-scale physical facilities may stimulate cultivators to

adopt more advanced farming methods. This is a psychological factor which may be particularly important in under-developed countries.

In decisions on land reclamation projects, consideration must also be given to possible alternative uses for idle lands, such as forestry or recreation. Maximum benefits, too, can be obtained from reclamation, settlement and irrigation projects only if they are associated with improved agricultural techniques, such as improved varieties and fertilization, mechanization, and rational farm management. In the case of the Ganges-Brahmaputra basin mentioned above, for example, various means for increasing yields per acre, per animal, and per man should go hand in hand with the expansion of cropped areas in order to achieve the best results.

Possibilities and relative advantages of increasing yields

In most parts of the ECAFE region, there are very substantial possibilities for increasing production from the arable and grazing lands now in use by raising the yields of crops and animal products per unit of area and per animal. The appropriate techniques include supplementary irrigation and drainage at the farm level; improvements in soils by the use of chemical fertilizers, green manure, animal and human manures, and composting; the use of improved plant varieties; of introduction of improved breeding stock (and the culling or sterilization of inferior animals); better livestock feeding; insect and disease control; weed control and so on.

For the most part, the investments and the fundamental research needed to realize these potentialities would be much less than those required to bring new lands under cultivation, even though the absolute amount of expenditure and research would be large for those countries with the greatest potential. These considerations suggest that, where farming is not intensive, or where little free land of easy access is available, technical means for increasing yields are to be preferred to the expansion of the areas under cultivation.

The choice between these various technical means and their optimum combinations is a more complicated business. There are, for instance, many methods of soil fertilization, such as the application of commercial fertilizers, compost, green, animal or human manures. The optimum application, moreover, of nitrogen, phosphatic or potassic fertilizers differs according to the nature of soils.

A thorough knowledge of natural conditions is therefore desirable in making the choice. In general, where there is an apparent lack of a specific production factor and where an additional input of that factor will produce proportionately more than other factors, the technical means which supplies that critical factor should be given preference. A choice between heavier fertilization and varietal improvement depends on the conditions under which the choice is made, because in certain circumstances these two means are largely complementary. If, however, there are more or less improved varieties already which are responsive to heavy fertilization, and the decisive factor for increased production is poor soil fertility which can be quickly remedied by fertilizers, fertilization would be preferable to varietal improvement.

In addition, a knowledge of the relevant economic and social conditions is desirable. For example, the application of human manures will depend, apart from the requirements of natural conditions, on the traditional way of living of the people and on the income levels of farmers, as well as on the prices of commercial fertilizers.

To facilitate a choice between the different means, it is desirable to have quantitative estimates of the effects of different methods of increasing yields. Experimental data from research in the areas under consideration probably offer the best approach. Another method would be to estimate the differences in yields between areas where the various means are used and areas where they are not. Yields in the more proficient countries, where natural conditions are more or less the same, might be taken as a rough indicator of potential increases. Caution is needed in dealing with this problem, however, because of differences in natural, economic and social conditions as between countries and because the yields achieved result from an application of several technical means combined, rather than from any one separately.

There is a striking difference in paddy yields per hectare between the countries of the region. The figures range from about four tons per hectare in Japan to less than one and a half tons in some other countries. The higher yield in Japan is attributed mainly to improved varieties, heavy fertilization and intensive farming practices. This would suggest that, under similar natural conditions, it is possible to increase yields per hectare at least two or three times in countries with yields at the lower limit. In fact, India has launched the so-called "Japanese method of rice culture" campaign, and the results obtained seem to bear out the possibility of achieving such increases. It may be objected that the Japanese yields, while high per hectare, are low per man and are only achieved by the painstaking cultivation of every square foot of ground. In fact, output per man is considerably higher than for most rice-growing countries in the region, and the low level by western standards is largely due to institutional factors, in particular the small scale of the farms and the minute size of the individual plots.

Possibilities and relative advantages of improvements in cropping patterns and farming systems

Under this heading may be grouped programmes for the more extensive cultivation of existing crops, the introduction of new crops, improved crop rotation systems, mixed farming systems including animal husbandry, better hand and power tools, mechanization, co-operative farming and more efficient farm management. Generally speaking, these have the advantage of requiring smaller investments than those of the other two groups, since they do not aim so much at creating or changing the natural conditions of soils, plants and animals as at reorganizing the use of natural conditions in order to raise productivity.

Natural, social and economic conditions, however, must lend themselves to this approach. A new crop should not be introduced unless soil and climate are suitable and the market prospects for the crop appear favourable. Diversified farming may not be practical

unless the soils are reasonably fertile. Mechanization may require land consolidation, which in turn will necessitate institutional adjustments. Co-operation and improved farm management will require some education of cultivators, as well as advanced techniques of farming.

This again points to the close inter-relationship of the various technical means for agricultural expansion. The point is well illustrated by the superiority, in most conditions, of a combination of crop and animal husbandry over either branch by itself. It is widely recognized that diversification of agriculture in this sense provides the best means of increasing agricultural productivity per man and of increasing and stabilizing agricultural incomes, but this will be economically feasible only as markets for diversified production (including livestock products) expand with rising incomes.

Diversification can be achieved only on the basis of an accumulation of the various technical means. It may be only after a considerable area is added for cultivation, either by reclamation or irrigation, that sufficient land can be released for reasonable animal husbandry, or after yields and production have been increased sufficiently to provide a surplus for animal feed. The approach to agricultural expansion should therefore be comprehensive and based on a selection of the most appropriate technical means, under the actual conditions—natural, social and economic—in a given country.

Techniques for Economic Appraisal of Agricultural Projects

Financial appraisal and surveys of farm income and expenditure

As financial resources are always scarce in comparison with investment needs in under-developed countries, it is good policy to undertake the economic appraisal of development projects with a view to establishing priorities. This is normally done by private entrepreneurs before they take investment decisions, and there is no reason why it should not also be done by public bodies, government or government agencies when investing public funds.

Public bodies could appraise investment projects just like any private entrepreneur. They could assess the financial outlays for initiating and running the project and compare them with expected financial returns, both being duly discounted at current rates of interest, in order to ascertain whether or not the project is financially sound. The main difference between a private entrepreneur and a public body would be mostly in the selection of items to be included among the returns on the project. While the former will take into account only direct revenues from his investment, the latter has to allow for indirect revenues. Thus, in the case of an irrigation project, financed by the state, the water rates charged to the beneficiaries will be a direct return, while the increased yields of direct and indirect taxes resulting from the expanded economic activities and incomes in the region of the project will be indirect returns. These may be as important, or even more important, than direct returns.

The financial analysis of an agricultural development project hinges on the appraisal of the repayment capacity of those benefiting from it. The basis for such an appraisal is provided by *ad hoc* surveys of farm income and expenditure before (and also after) the project has been established, taking into account possible changes in farming plans. Techniques for surveying farm business are fully developed and regularly used in the United States and in certain European countries and are being progressively applied in some countries of Asia and the Far East, especially Japan. These techniques have to contend with a number of difficulties which can be overcome only by a variety of talents. Agricultural statisticians are needed for the selection of farms to be surveyed, farm management specialists and agronomists for other aspects. The main purpose of these surveys is to determine how much of the cost of the improvement could be borne by the farmers directly, for instance in the form of water rates in an irrigation project.

This information will substantially affect the calculations of returns. Should the repayment capacity of the farmer be high and reach this level in a relatively short period of time, financial returns would be correspondingly high, and *vice versa*. Whether or not a development project is financially sound is therefore largely dependent on the results of the farm income and expenditure surveys carried out in the area of the project. The financial returns could be enhanced by an increase in indirect revenues, say, taxation yields, but it is expected that these will be correlated with the economic status of the farmers affected by the project.

In the past, many countries, and in particular those of Asia and the Far East, when appraising development projects, have often given priority to financial analysis. Governments have been very conscious of the importance of financial returns on capital invested and have consequently assessed the case for establishing development projects on this basis. Only recently has it been increasingly realized that financial analysis gives only part of the story, since it is not substantially different from the appraisal by any private entrepreneur. Since governments are concerned with the welfare of the whole community, the scope of the appraisal has to be enlarged if it is to take account of all the effects of development projects on welfare. Gradually, this new concept has penetrated into government circles, with the result that attention has been shifted from financial analysis to economic appraisal, that is, the process by which costs and benefits are looked on neither from the point of view of an individual or a small group of interests nor from the point of view of the financing body, but rather from the point of view of the community as a whole.

Examples of this change in emphasis in the countries of Asia and the Far East are provided by the symposium on the determination of costs and benefits of river valley projects held in India in 1953 and by the discussions which took place at the Regional Technical Conference on Water Resources Development in Japan in 1954. FAO, which had previous experience in project appraisal through several training centres held in different regions of the world, stimulated this new trend by organizing a national training centre on this subject in East Pakistan in 1955.

Economic appraisal: Cost and benefit studies

The techniques of cost and benefit appraisal have been developed in the United States, where a code of principles, applications and procedures was published in 1950.[53] It constitutes the basis for the economic evaluation of water resources development projects. The ultimate objective of the economic appraisal is to assess the effects on national income of a specific project. Costs are the value of goods and services which will be used, and benefits are the value of goods and services which will be added, if a project is undertaken. A project is economically justified when total benefits are greater than total costs, i.e. when the benefit and cost ratio is above unity.[54]

The following points appear to be specially relevant to the problems of under-developed countries:

(*a*) Aspects of the cost and benefit method itself, including the necessary investigation and action to adapt it to such countries;

(*b*) The applicability of the method to various technical means for expanding agricultural production;

(*c*) The limitations of the method in establishing priorities among different development projects, and need for qualifying criteria.

Features of the cost and benefit analysis in under-developed areas

The relative scarcity of statistical information in under-developed countries constitutes a serious obstacle to the economic appraisal of development projects, not so much in relation to the costs of construction and costs of operation and maintenance as in respect of benefits.

In developed countries, information (derived from existing price series) is generally available on the future trend of prices for the products grown in the area of the project. Hardly anything of this sort exists in many under-developed countries, with the result that it is very difficult to estimate future price levels and hence to appraise the benefits. Unless there are good reasons to suggest that future prices will correspond to present levels, a special effort must be made to obtain more reliable projections by utilizing all information available on general economic conditions, internal and external markets, etc. and, when necessary, to ask statistical offices to undertake this type of analysis. Lack of statistical data should not discourage economic appraisal but rather stimulate the search for more data.

Another characteristic of under-developed vis-à-vis developed countries is the relatively lower receptivity to change on the part of farmers in the former areas and the cruder environmental conditions, especially in relation to agricultural credit, marketing facilities and other services. The combined effects of these two factors may result in a delay in the accrual of benefits from the project in an under-developed area and thereby unfavourably affect, other things being equal, the benefit and cost ratio. Special attention should therefore be devoted in under-developed areas to planning and budgeting at the farm level, together with the farmer, so as to teach him how to use the new facilities offered by the project and to realize why it is convenient for him to do so. Pilot schemes properly located, and covering a group of farmers, should be widely used to show the advantages with concrete examples. The economic appraisal of the project should be closely geared to the effects of these experiments on farmers' psychology. An equally important point is the provision of adequate environmental conditions, such as credit agencies, storage and other services, so that the farmers benefiting from the project may receive an additional inducement to make full use of the advantages offered.

All this, however, entails additional costs. The problem is whether these costs should or should not be included in project costs. While it appears that the expenditure required for careful farm planning and budgeting should be included, there may be some debate in regard to the inclusion of costs for improving environmental conditions. In normal procedures, no mention is made of these costs. This is because these procedures have been developed mainly in advanced countries where services available to the farmers are adequate and no special provisions are therefore required in connexion with a specific project. The case of under-developed countries is different. Project benefits there may depend largely on the provision of appropriate inducements to farmers. *Prima facie*, it appears that costs for ancillary services should be included in project costs, but the matter still needs close consideration.

Finally, a special problem of under-developed countries is that of the evaluation of secondary benefits. These are defined as consisting of the value added in the activities stemming "from the processing of project output following initiation of project operation or induced by incremental money incomes arising from increased employment during project construction". This question raises several difficult points and agreement has not yet been reached as to the treatment to be given to secondary benefits. The major objection to their inclusion in project appraisal is that, in a dynamic economy, the assumption that there are no secondary benefits without the project is not valid. For this and other reasons, the present trend of thought in developed countries seems to be to base economic appraisal on primary benefits only.

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[53] Report of the United States Federal Inter-Agency River Basin Committee, *Proposed Practices for Economic Analysis of River Basin Projects*, prepared by the Sub-Committee on Benefits and Costs, Washington, D.C. May 1950. Complex problems are involved in project appraisal, which affect its basic methodology as well as the technique of computing different categories of benefits and costs. Several of these problems are still subject to debate in the United States, and recent information indicates that a revision of the 1950 publication is under way in order to provide a more solid foundation for analysis. Meanwhile, other countries in Europe and Asia and the Far East are becoming interested in the technique and are applying it to river development projects for irrigation and power. In each case, as appeared at the Regional Technical Conference on Water Resources Development in Asia and the Far East sponsored by ECAFE in Tokyo in 1954, adjustments are needed in respect of local conditions, but the basic criteria are those originally developed in the United States. Perhaps the time has come when under-developed countries can make a contribution to the reconsideration of the problem by suggesting a fresh approach.

[54] United Nations, *Manual of River Basin Planning* (sales number: 1955.II.F.1), part I; chapter III gives a full account of the basic criteria and rules for economic appraisal.

Is this trend justified in under-developed countries where the basic hypothesis of a dynamic economy may not be as fully justified as in developed areas? In the rather static conditions of an under-developed region, a development project may stimulate a number of economic and social activities which otherwise might remain dormant. In that case, secondary benefits could again play a significant role in project appraisal. From the secondary benefits of a specific project, it might be possible to subtract the secondary benefits which would have been possible without the project. Problems of calculation, as well as the extent of secondary repercussions which should be included in the benefit side, however, await a solution. A possible way out of these difficulties is to take account only of those secondary benefits which can be fairly easily identified and which can be computed on the basis of the available information.

Applicability of the cost and benefit method

The cost and benefit technique has been mainly elaborated and applied in connexion with river basin development projects. Whether or not it can profitably be used on other types of agricultural development projects remains to be studied. Various technical means for agricultural expansion were indicated above. While the cost and benefit method can be applied to the first group of means, namely, projects for the reclamation of new lands and for the irrigation and drainage of unused lands or cultivated lands, it cannot be as easily applied to the other two groups. This does not mean that there are unsurmountable difficulties in applying the method, say, to a project for mechanization or for soil fertilization but that, in projects such as these, it is usually very difficult to delimit the area of the scheme. Very often, agricultural programmes necessitating a more widespread use of fertilizers, varietal improvements and insect and disease control, the introduction of new crops, diversification and so on are undertaken in regions or areas without the zone of the experiment having been precisely defined. This is not surprising, since there is no permanent structure or group of structures, such as a dam or barrage and irrigation canals in an irrigation scheme, by which the project and its extent can be clearly identified. Costs, and especially benefits, become very difficult to calculate in these conditions. Needless to say, the economic appraisal can be applied to agricultural projects other than river development schemes as soon as the zone and the extent of the project are defined.

In each type of project, adjustments of basic techniques will be necessary in order to meet different conditions, but the principles of the method remain the same. Thus, in a "specific" project for soil fertilization, the cost will be the foreign exchange used for buying a given quantity of fertilizers abroad, or, alternatively, the internal price paid, plus distribution costs, while the benefits will be represented by the value of the increased output net of current expenditure. The approval of the economic benefits of such projects must of course be based on quantitative and value estimates of the increased production anticipated. By and large, it seems that the cost and benefit technique is more easily applicable to the second group of technical means, i.e. supplementary irrigation and drainage, soil fertilization, varietal improvement and insect and disease control, than to the third group. The latter comprises some means for agricultural expansion, such as co-operative farming, improvements in farm management and others, which do not lend themselves to economic appraisal, especially in view of their important non-economic implications.

Cost and benefit technique and the problems of priorities

The cost and benefit method is primarily meant to help in assessing the economic soundness of a specific project. Planning boards or commissions, on the contrary, are usually faced with decisions on a large number of development projects, and thereby with problems of comparison and priority. Can they avail themselves of the cost and benefit method at all, and, if so, to what extent?

The first difficulty has to do with the comparability of the different projects. If the problem is to compare one project for the improvement of soils on existing cultivated lands by supplementary irrigation and drainage or fertilization with one for reclaiming and irrigating new lands, the ratios of benefits to costs in the two ventures can provide the answer. Under (*a*) above, some general criteria have been indicated for the approach to problems of this type in different countries of Asia and the Far East. It is suggested that the cost and benefit method can be of great help in giving a clearer understanding of the economic implications of various alternatives. Very often, however, comparison is not possible—between, for instance, an irrigation project and a "project" for the establishment of co-operative farming. The latter has so many non-economic aspects, which may be as important as the economic factors and yet cannot be quantified. Similarly, a reclamation project can hardly be compared with a project for building a road or with investments in social overhead capital in general. The benefits from the latter are too scattered in space and time to be correctly appraised. In cases such as these, the cost and benefit method has very limited, if any, value, in making comparisons. Other criteria have to be found when a choice is to be made and priorities determined.

The second difficulty is in respect of the dimensions of the project both in space and in time. A large-scale project may be regarded as likely to use a substantial part of available financial resources at the expense of other small projects which, if all of them were undertaken, could, in combination with the former, give higher over-all benefits. In these circumstances, it appears desirable to limit the large project to less-than-optimum dimensions in order to finance the other projects. In other words, the incremental benefit and cost ratios of different projects in the development programme should be as nearly equal as possible. It may also happen that, owing to the impact of projects on each other, a series of interrelated projects changes the benefit and cost ratio of each project taken in isolation.

Finally, another weakness of the technique of establishing priorities on the basis of the cost and benefit ratio is that the economic appraisal, as modified at present, only considers income effects. In under-developed economies, there are other possible effects of projects which ought to be evaluated, such as the impact of agricultural development projects on balance of payments and on

income distribution. If the balance of payments is in a position of structural disequilibrium and it is felt that social improvements are conducive to more spontaneous development, the effects of projects on balance of payments and on income distribution should be taken into account before final priorities are established.

This does not mean that the cost and benefit appraisal of each agricultural development project should not be made, whenever possible, with a view to providing a preliminary orientation to the planning authorities. But, when priorities for various sectors, or for the economy as a whole, are being considered, a programme—instead of a project—approach should be adopted. The economic choice of technical means for agricultural expansion can, in most cases, be made with the help of the cost and benefit method, but that method alone cannot supply the answer to the problem of the optimum allocation of resources.

Appendix

The Shihmen Reservoir Project, an Illustration of Benefit and Cost Analysis

As mentioned above, the principles of benefit and cost analysis and the methods of measurement of benefit and cost are dealt with in ECAFE's publication on *Multiple-purpose River Basin Development: Manual on River Basin Planning*. The following example of the method of computation of benefits and costs (as well as of the determination of the economical scale of development) is taken from the Interim Planning Report of the Shihmen reservoir project prepared by the Shihmen Planning Commission, the Republic of China.

The project is located 40 kilometres south of Taipei city on a tributary of the Tanshui River. A dam about 125 metres high will create a reservoir which will store and detain floods for the protection of Taipei city and the low land along the Tanshui River, supply water to irrigate 54,000 hectares of land, generate 122 million kilowatt-hours of power and supply water for the needs of 340,000 towns people and of industry.

Computation of benefit and cost:

Cost

The dam forms the main structure of the project and the cost of a project varies with the height (size) of dam to be selected. For various heights of the dam, the annual project costs are given in the figures below (in thousands of New Taiwan dollars).

Height of dam (metres)	*Total cost of project*	*Annual cost*	*Annual cost as percentage of project cost*
125	851,543	73,669	8.65
120	804,664	69,892	8.69
115	757,309	66,253	8.75

The annual cost of the project development consists of fixed charges and operation and maintenance charges. These costs are computed in terms of initial project cost as follows:

Annual fixed charges:

Interest on investment	6.00 per cent
Amortization (50 years) at 6 per cent interest	0.34 per cent
Insurance and taxes	1.12 per cent
Interim replacement of equipment and repair of structure	fixed amount estimated according to type of equipment & structure

Annual operation and maintenance:

Variable for different parts of the project, for example: canal 5 per cent, tunnel 0.1 per cent, gates and valves 1.5 per cent, of initial cost

The annual cost of the project for different heights of dam as given above is of the order of 8 to 9 per cent of the total project cost.

Benefits

Benefits to be derived from the project are computed on an annual basis. Only tangible benefits, i.e. benefits that can be expressed in monetary terms, are included in the computation.

Like the costs, benefits vary with the size of the project. The higher the dam, the more will be the storage of water and hence the larger the area to be brought under irrigation and the larger the volume of power to be generated.

The benefits from various phases of the project are as follows:

(*i*) Irrigation—net profit of newly added farm products.

(*ii*) Power—value of energy produced, assessed at cost of production of thermal power.

(*iii*) Flood control—reduction of flood damage resulting from a restriction of flood flow.

(*iv*) Public water supply—value of water delivered, assessed at the cost of the cheapest alternative source of the supply for the same amount of water.

(*v*) Benefits from other associated functions—such as recreation, sediment control, conservation of wild life—are not included in the computation.

The annual benefits to be derived from various phases of use of water for various heights of the dam are set out in table 6.

Table 6.

SHIHMEN RESERVOIR PROJECT: TANGIBLE BENEFITS OF PROJECTED DEVELOPMENT

(Thousands of New Taiwan dollars)

Height of dam (metres)	Irrigation	Power	Flood control	Water supply	Total
135	63,920	52,680	8,700	1,600	126,900
130	63,520	50,800	8,300	1,600	124,220
125	63,070	49,070	7,690	1,600	121,430
120	62,250	46,010	6,490	1,600	116,350
115	60,200	44,100	5,250	1,600	111,150
110	55,070	41,250	4,000	1,600	101,920
105	46,720	37,470	2,750	1,600	88,540

Benefit-cost ratio

The annual benefits and annual costs for various heights of the dam are summarized in columns 2 and 4 of table 7. Column 7 of the table gives the ratio of annual benefit to annual costs, that is the benefit-cost ratio. It may be noted that, for all the heights selected, the benefits exceed the corresponding costs, which indicates that all the projects are economically attractive.

The question of choosing the most economical scale of development (or most appropriate height of dam), however, remains to be considered.

In addition to the benefit and cost ratio, B/C, table 7 also gives the net benefit, (B-C), the rate of return, (B-C)/I (net benefit per unit of initial project cost or investment, I, incremental benefit, ΔB, incremental cost, ΔC and the incremental or the marginal benefit cost ratio $\frac{\Delta B}{\Delta C}$

A basic principle of resources development is to maximize the net project benefit. At the point of maximum net benefit, the ratio between the incremental benefit and incremental cost is unity. Any practical segment of development should have a benefit in excess of the cost. Furthermore, the development should be cheaper than the alternative means capable of providing the same project effect.

From table 7 it will be seen that the net benefit (B-C) is at a maximum when the height of the dam is at about 125 metres. At this height, the incremental benefit-cost ratio ($\Delta B/\Delta C$) is about equal to unity. (This ratio changes from 0.838 to 1.345 as the height is changed from 130-125 to 125-120 metres and approaches unity when the height is 125 metres). This height was therefore chosen for the Shihmen project.

Table 7.

SHIHMEN RESERVOIR PROJECT: COMPARISON OF ANNUAL BENEFITS AND COSTS

(Thousands of New Taiwan dollars)

Height of dam (metres) (1)	Benefit B (2)	ΔB (3)	Costs C (4)	ΔC (5)	Net benefit (B - C) (6)	Benefit/ cost ratio B/C (7)	$\Delta B/\Delta C$ (8)	(B-C)/I (9)
135	126,900		80,600		46,300	1.574		...
		2,680		3,600			0.744	
130	124,220		77,000		47,220	1.613		...
		2,790		3,331			*0.838*	
125	121,430		73,669		*47,761*	1.649		5.61%
		5,080		3,777			1.345	
120	116,350		69,892		46,458	1.665		5.77%
		5,200		3,639			1.429	
115	111,150		66,253		44,897	1.677		5.93%
		9,230		3,753			2.459	
110	101,920		62,500		39,420	1.631		...
		13,380		3,700			3.616	
105	88,540		58,800		29,740	1.505		...

V. ALLOCATION OF RESOURCES FOR INVESTMENT IN AGRICULTURAL AND NON-AGRICULTURAL DEVELOPMENT[55]

Assessment of Investment Resources

Investment resources are available from two major sources: domestic savings and foreign capital.

Domestic savings

Actual and planned rates of saving

Rates of saving are generally low in under-developed countries, chiefly because of low per capita incomes and hence the high propensity to consume. Thus, available statistics (see table 8) show that the average rate of gross saving to gross domestic product was 10 per cent or less for Ceylon, India, Indonesia and the Philippines. Southern Korea had a negative gross rate of saving of 8 per cent from 1953 to 1955; its economy and capital formation have been sustained by substantial amounts of foreign aid. The rates of gross saving of Burma, Malaya and Japan were much higher.

A rise in the rate of saving is vital to economic development, yet only in five countries—Ceylon, India, Indonesia, Japan and Pakistan—can an estimate of such rises planned under the development programmes be easily derived from the available information. The rate of net[56] saving (in relation to national income) for India, Pakistan and Indonesia is expected to increase from 7, 5 and 5 per cent, respectively, in the year prior to the plan period (1955/56 for India, 1954/55 for Pakistan, and 1955 for Indonesia) to 9.7, 8.0 and 7.3 per cent in the final year of the plan period (1960/61 for India, 1959/60 for Pakistan, and 1960 for Indonesia). This rise is to be brought about in each case by saving more than 20 per cent of the increase in income during the plan period, that is, by sharply stepping up the marginal rate of saving. In the plans of Ceylon and Japan, the difference between average and marginal rates, that is, the rise in the former, is much smaller. In Japan, this trend is not surprising in view of the high rate of savings in the base period.[57]

[55] Revision of E/CN.11/DPWP.3/L.7, a paper prepared for the Third Session of the Working Party on Economic Development and Planning by the ECAFE secretariat.

[56] Gross saving less depreciation.

[57] United Nations, *Economic Survey of Asia and the Far East, 1956* (sales number:1957.II.7.1).

Table 8.

Capital Formation and Gross Savings in Eight ECAFE Countries

(At current prices)

Country, year and unit	Gross fixed capital formation		Change in stocks	Capital formation (1)+(2)+(3)	Exports, less imports of goods and services	Gross domestic savings (1)+(2)+(3)+(5)	Gross domestic product	Capital formation as a percentage of gross domestic product	Gross domestic savings as a percentage of gross domestic product
	Public (1)	Private (2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)
Burma (millions of kyats):									
1947	124	304	53	481	—298	183	2,966	16.9	6.2
1948	91	434	77	602	—218	384	3,557	16.2	10.8
1949	86	196	—20	262	268	530	3,234	8.1	16.4
1950	91	239	—11	319	164	483	3,132	10.2	15.4
1951	133	298	45	476	228	704	3,690	12.9	19.1
1952	226	384	133	743	222	965	4,084	18.2	23.6
1953	259	393	224	876	288	1,164	4,620	19.0	25.2
1954	435	398	178	1,011	—102	909	4,593	22.0	19.8
1955	491	415	108	1,014	32	1,046	4,789	21.2	21.8
1956	490	464	11	965	125	1,090	5,010	19.3	21.8
Average, 1947–1956	243	352	80	675	71	746	3,968	17.0	18.0
Ceylon (millions of rupees):									
1947	32	98	...	130	—134	—4	2,509	5.2	— 0.2
1948	70	105	...	175	18	193	2,817	6.2	6.8
1949	123	153	...	276	— 52	224	3,077	9.0	7.3
1950	213	222	...	435	156	591	4,096	10.6	14.4
1951	224	332	...	556	154	710	4,735	11.7	15.0
1952	307	302	...	609	—324	285	4,530	13.4	6.3
1953	314	245	...	559	—204	355	4,641	12.0	7.6
1954	298	202	...	500	323	823	5,014	10.0	16.4
1955	353	271	...	624	305	929	5,514	11.3	16.8
Average, 1947–1955	215	214	...	429	27	456	4,100	10.5	10.0
China (Taiwan); (millions of New Taiwan dollars):									
1951	1,308	1,089	...	2,397	—525	1,872	10,821	22.2	17.3
1952	2,019	1,445	...	3,464	—773	2,691	15,750	22.0	17.1
1953	2,540	1,292	...	3,832	—1,249	2,583	21,203	18.1	12.2
1954	2,737	1,399	...	4,136	—2,107	2,029	23,158	17.9	8.8
1955	3,487	577	...	4,064	—1,114	2,950	27,889	14.6	10.6
Average, 1951–1955	2,418	1,160	...	3,579	—1,154	2,425	19,764	18.1	12.3

Table 8. (cont'd)

Country, year and unit	Gross fixed capital formation: Public (1)	Gross fixed capital formation: Private (2)	Change in stocks (3)	Capital formation (1)+(2)+(3) (5)	Exports, less imports of goods and services (5)	Gross domestic savings (1)+(2)+(3)+(5) (6)	Gross domestic product (7)	Capital formation as a percentage of gross domestic product (8)	Gross domestic savings as a percentage of gross domestic product (9)
India (billions of rupees):									
1948	2.1	5.8	...	7.9	—2.5	5.4	94.3	8.4	5.7
1949	2.7	6.4	...	9.1	—0.6	8.5	98.6	9.2	8.6
1950	2.7	7.0	...	9.7	0.5	10.2	104.3	9.3	9.8
1951	3.0	7.9	...	10.9	—1.9	9.0	109.8	9.9	8.2
1952	3.0	7.8	...	10.8	0.5	11.3	107.8	10.0	10.5
1953	3.4	7.9	...	11.3	—0.3	11.6	114.6	9.9	10.1
Average, 1948–1953	2.8	7.1	...	9.9	—0.6	9.3	104.9	9.4	8.8
Indonesia (millions of rupiah):									
1951	1,800	2,100	...	3,900	1,048	4,948	82,819	4.7	6.0
1952	2,000	2,900	...	4,900	4,504	9,404	93,422	5.2	10.1
Average, 1951–1952	1,900	2,500	...	4,400	2,776	7,176	88,120	5.0	8.1
Japan (billions of yen):									
1946	30	48	28	106	— 19	87	474	22.4	18.4
1947	146	117	82	345	— 53	292	1,309	26.4	22.3
1948	258	258	236	752	—109	643	2,667	28.2	24.1
1949	299	324	208	831	—110	721	3,376	24.6	21.4
1950	189	438	360	987	107	1,094	3,972	24.8	27.5
1951	424	673	584	1,681	212	1,893	5,474	30.7	34.6
1952	471	802	385	1,658	91	1,749	6,120	27.1	28.6
1953	623	930	413	1,966	— 1	1,965	7,087	27.7	27.7
1954	561	897	274	1,732	159	1,891	7,453	23.2	25.4
1955	737	963	451	2,151	167	2,318	8,214	26.2	28.2
Average, 1946–1955	374	545	302	1,221	44	1,265	4,615	26.5	25.8
Korea, southern (billions of hwan):									
1953	3	30	...	33	— 94	—61	478	6.9	—12.8
1954	8	70	...	78	—135	—57	701	11.1	— 8.1
1955	27	108	...	135	—171	—36	1,140	11.8	— 3.2
Average, 1953–1955	13	69		82	—133	—51	773	10.6	— 8.0
Malaya (millions of Malayan dollars)									
1949	92	215	70	377	35	412	3,550	10.6	11.6
1950	91	240	—90	241	1,335	1,576	5,345	4.5	29.5
1951	168	325	—35	458	1,590	2,048	7,520	6.1	27.2
1952	251	405	100	756	295	1,051	6,350	11.9	16.6
1953	235	340	25	600	40	640	5,780	10.4	11.1
Average, 1949–1953	167	305	14	486	659	1,145	5,709	8.5	19.2
Philippines (millions of pesos):									
1946	13	245	126	384	—154	230	4,801	8.0	4.8
1947	53	478	167	698	—360	338	6,164	11.3	5.5
1948	137	508	123	768	—143	625	6,423	12.0	9.7
1949	198	401	67	666	—514	152	6,393	10.4	2.4
1950	188	297	84	569	77	646	6,882	8.3	9.4
1951	162	330	68	560	— 55	505	7,705	7.3	6.6
1952	161	325	100	586	— 55	531	7,887	7.4	6.7
1953	165	395	117	677	5	682	8,338	8.1	8.2
1954	171	396	156	723	— 50	673	8,490	8.5	7.9
1955	177	451	172	800	—198	602	8,989	8.9	6.7
Average, 1946–1955	142	383	118	643	—145	498	7,207	8.9	6.8

Souce: United Nations Statistical Office and official national sources except for the following: China (Taiwan): Bank of China, *Bimonthly Economic Review*, May-June 1957; Hong Kong: Communication from Edward F. Szczepanik, University of Hong Kong; Malaya: International Bank for Reconstruction and Development, *The Economic Development of Malaya*, part V (Washington, D.C.).

Ceylon, China (Taiwan), Indonesia, Malaya and Philippines, calendar years; India: fiscal years beginning 1 April; Japan: fiscal years beginning 1 April for 1946-1955; Burma: fiscal year beginning 1 April for 1938, and fiscal years ending 30 September for 1947-1956; southern Korea: fiscal years beginning 1 July.

Sources of savings

Investment funds[58] from domestic savings are provided by individuals, corporate bodies or governments. Voluntary savings by individuals appear to be small in under-developed economies, since agriculture is the main source of both employment and output. Moreover, owing to lower per capita real and (even more) cash incomes in the agricultural sector, the volume of per capita savings is very small and is lower than in other sectors. Furthermore, the low propensity to save is generally accompanied by a high propensity to hoard, which immobilizes a substantial part of savings. This propensity is characteristic of peasant farming in under-developed countries, where the occurrence of losses due to natural hazards or a fall in prices, considerations of prestige and social pressure entailing ceremonial expenditure all incline the peasant to keep his savings in a more or less liquid form. A substantial part of such savings, therefore, does not find its way into deposits with financial institutions (which in any case are not always available), or, generally, to productive investment on farms.[59]

As to rural investments in the form of shares, deposits and the like, the recent Indian survey of rural credit revealed that, during fiscal year 1951/52, such investments amounted, on the average, to less than Rs 4 per family, and were mostly effected by the 10 per cent of cultivators with the biggest holdings.[60] Co-operative societies, especially credit societies, can be useful in the collection and mobilization of rural savings in the region. They have had relatively little success,[61] however, except in Japan.

The savings of the wage and salary earners, like those of the peasant, are usually in driblets and are difficult to collect and mobilize for productive investment. Nevertheless, Japan has been fairly successful in this respect, thanks to a well organized and nationwide government postal savings system which played a very important role, particularly in the early stages of Japan's industrialization. At the end of 1893, deposits of postal savings were about two-thirds of those in ordinary banks.[62]

It is widely believed that, although the per capita incomes of under-developed countries are low, income distribution is very uneven[63] and that substantial savings could be effected by the upper income groups, including the landlords, whose income is largely derived from rent. In fact, the landlords' surplus funds are usually tied up in land, luxurious residential houses, churches and temples, or are earmarked for charity or conspicuous consumption. The more equitable income distribution resulting from land reform does not ordinarily promote savings for productive investment but leads to higher consumption of essential goods by the peasants and a reduction in non-essential consumption by the landlords. An improvement in income distribution by means of progressive taxation, particularly on income, can however lead to larger government savings and productive investment, although most probably there will be a simultaneous drop in private savings.

In the developed countries, the most important source of investment finance for economic growth has generally been business profits, whether distributed or undistributed. As pointed out by Professor Lewis,[64] the ratio of savings to national income is a function not just of the size and the inequality of income but of the proportion of profits to national income. A rise in the ratio of savings to national income from 5 to 12 per cent would represent an enormous increase in the share of profits in the national income. In under-developed countries, where the industrial sector is small and corporate organization not yet developed, savings from profits do not appear to have been large. In Japan, the share of corporate profits in national income was only 4 per cent in 1930, but it increased to 9 per cent in 1955.

In recent years, government savings have become increasingly important. In developed countries as well, a high proportion of saving and investment is directed to government and government-sponsored projects. Government savings can be obtained either from an excess of current revenue over current expenditure, or from the profits of public enterprises. Part of private savings which was previously either hoarded or put to unproductive uses may now be mobilized and productively invested by the government. In Burma, the high rate of savings in recent post-war years was largely due to the substantial profits of the Government monopoly in rice trading, which appeared to be a concealed form of taxation.

The government's non-inflationary borrowing will increase State resources for investment but, if such loans are financed by private savings, they increase the savings of the economy as a whole. In over-populated and under-developed countries, deficit financing can mobilize surplus labour for productive investment and can thereby increase capital formation.[65] Deficit financing may, however, give rise to price inflation to the point at which the reduction in real savings and investment in the private sector cancels any increase in savings of the economy as a whole.

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58 See also section on "Non-Financial Aspects of Investment" below.

59 Food and Agriculture Organization of the United Nations, *Report of the Centre on Agricultural Financing and Credit for Asia and the Far East*, Lahore, October 1956, (FAO Report No. 631, February 1957), p.46.

60 Reserve Bank of India, *All-India Rural Credit Surveys: The General Report* (abridged edition), p.264.

61 In India, for instance, at the end of co-operative year 1953/54, i.e. after half a century's work, the agricultural credit societies had, as capital, reserves and deposits, an aggregate amount of only Rs 262 million, while the remainder of their working capital of Rs 544 million came from outside sources, mainly in the form of borrowing. Reserve Bank of India, *Statistical Statements relating to Co-operative Movement in India for 1953-54* (Bombay), p.ii.

62 Saburo Okita, "Saving in Japan", a paper presented to the Conference on Problems of Economic Growth under the auspices of the Congress for Cultural Freedom (Tokyo), April 1957.

63 Reliable data on the inequality of income are lacking for most under-developed countries. However, a study made by Kuznets on the distribution of family income in India (1949/50) and Ceylon (1950) shows that the shares received by the richest fifth were 55 and 50 per cent, respectively, as against 44 per cent in the United Kingdom. "Economic Growth and Income Inequality", *American Economic Review* (Evanston, Illinois), March 1955, pp. 20-21.

64 A.W. Lewis, *The Theory of Economic Growth* (London, 1955), pp. 226-227.

65 The use of surplus labour for such capital formation will be discussed more fully in the section on "Non-Financial Aspects of Investments".

Capital inflow

As domestic saving is generally low and, even if effectively mobilized and directed to productive investment, is not enough to sustain a satisfactory rate of economic development, capital inflow from outside is generally necessary to accelerate development and to ease the strain on the domestic economy. Capital inflow, whether public or private, may take various forms, of which equity investment, loans and grants are the more important.

Private foreign direct investment in under-developed countries has the advantage of allowing varying degrees of participation with local capital, the diffusion of new methods of technology and management, and the expansion of the scale of operation through re-investment. This type of investment continues to be welcome in almost every ECAFE country, although the usual policy now is to channel it into selected fields and to subject it to certain conditions designed to foster and safeguard the economic interests of the recipient country.[66]

In the past, foreign private capital investment in under-developed countries was interested chiefly in the production, processing and export of primary products such as petroleum, rubber, tin and timber, for world markets. In the present agricultural development plans, irrigation and in some cases reclamation and similar schemes have come to the fore. Investment in such fields requires large amounts of capital, and yields small, slow, and often uncertain returns. It is therefore not attractive to private capital, particularly from abroad.[67] In this kind of investment, especially when it calls for foreign exchange expenditure, foreign loans under international auspices and under bilateral or multilateral agreements between governments have played a significant role in the post-war period.

The International Bank for Reconstruction and Development undertakes to make loans to governments of less developed countries for improvements in transportation, communications, power, irrigation and land reclamation, and similar projects. In addition to drawing subscriptions from governments, mostly from the developed countries, the Bank also floats loans on the world capital markets. The annual rate of development lending by the Bank has increased steadily from $28 million in 1948 to more than $500 in 1956.[68] By 30 June 1956, development loans granted by the Bank totalled $2,170 million, of which $439 million, or 20 per cent, were granted to the following eight countries: Burma, Ceylon, India, Iraq, Japan, Lebanon, Pakistan and Thailand. Of this total, 31 per cent was allocated to electricity, 29 per cent to transport, 9 per cent to agriculture and forestry, and 31 per cent to industry.[69]

In July 1956, the International Finance Corporation came into existence. It has authority to invest in any kind of private productive enterprise, including agricultural, financial and commercial undertakings, but its main emphasis is likely to be on industry.

Inter-government development loans to under-developed countries have come to the forefront after the Second World War. The Export-Import Bank of Washington and the Colonial Development Corporation of the United Kingdom lend mainly, but not exclusively, to governments in fields of economic development involving risks which private capital would not normally assume.

International and inter-governmental loans are major items in the heading "official and bank long-term capital" in the balance of payments statements. The net inflow of such capital has been comparatively large in recent years in Ceylon, India, Pakistan, the Philippines and Thailand (see table 9).

International and inter-governmental grants have the advantage of bringing in resources from abroad and of not entailing repayment or bearing interest charges. The various United States programes of aid to less developed countries, which have greatly expanded since 1948, usually require the establishment by the recipient countries of counterpart funds which can be used for development purposes. United States aid to ECAFE countries from 1 July 1955 to 30 June 1956, including economic assistance under "defense support", amounted to $1,155 million of obligations, of which $857 million had been actually expended. In these totals, agricultural surplus disposal accounted for $199 million and $86 million, respectively. External grants are also provided to many countries of the region through the Colombo Plan, notably from Australia, Canada, New Zealand and the United Kingdom. Both the United Kingdom and France also include a large proportion of grants in their colonial investment plans.

Grants-in-aid have been given, too, through the United Nations, for example by the United Nations Relief and Rehabilitation Administration in the early post-war years, and technical assistance in the form of experts, fellowships and equipment is supplied by the Technical Assistance Board under the Expanded Programme of Technical Assistance.[70]

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[66] A recent ECAFE study on laws and regulations affecting foreign investment in Asia and the Far East concluded as follows: "There is no doubt that in certain respects new regulations that have grown up since 1950 have made investment in the region less attractive to foreign investors than before. For example, the fields in which it can operate have been somewhat curtailed on the whole, the degree of required participation of local capital, management and labour has been increased in several countries, and repatriation of income and capital has in some cases been made less free. But at the same time in certain other respects the attractions have increased. The laws are now better defined, double taxation relief is expanding, and government assistance to private investment in general is larger and growing." ("Laws and Regulations affecting Foreign Investment in Asia and the Far East", *Economic Bulletin for Asia and the Far East*, vol.VIII, No.1, May 1957, p.7).

[67] The private capital account in the balance of payment statements for 1950-56 even shows a net outflow in Burma, Ceylon, India and Indonesia (see table 9), owing mainly to repatriation of foreign capital. However, as the data in the balance of payment statements are incomplete, especially as to reinvested profits, this statistical evidence is inconclusive, particularly in the case of India. In recent years, there has been a substantial revival of private direct foreign investment (but not of private lending) in the world as a whole and in countries of the region including China (Taiwan), the Philippines and to some extent also Japan.

[68] Address by the president of the International Bank for Reconstruction and Development, before the twenty-third session of the Economic and Social Council of the United Nations, April 1957.

[69] International Bank for Reconstruction and Development, *Tenth Annual Report*, 1955/56 (Washington, D.C. 1956), Appendices.

[70] The proposed Special United Nations Fund for Economic Development (SUNFED) is designed to meet the need of the under-developed countries to accelerate the development of their economic and social infra-structure, and hence their production and well-being. This assistance is expected to take the form of both grants and loans, especially long-term low-interest loans.

Table 9.

Net Flow of Private Capital, Official and Bank Long-term Capital and Official Donations in the Balance of Payments of Ten ECAFE Countries

Country, unit and year	Private capital[a]	Official and bank long-term capital	Official donations	Total
Burma (millions of kyat):				
1950	– 11	...	—	– 11
1951	– 13	– 17	22	– 8
1952	– 31	—	35	4
1953	– 8	—	21	13
1954	– 5	–168	8	–165
1955	21	– 76	—	– 55
1956	10	– 4	32	38
Total	– 37	–265	118	–184
Ceylon (millions of rupees):				
1950	– 22	12	—	– 10
1951	– 41	– 80	—	–121
1952	25	– 6	—	19
1953	– 37	265	14	242
1954	– 49	69	24	44
1955	– 57	– 1	17	– 41
1956	– 20	– 40	2	– 58
Total	–201	219	57	75
China (Taiwan); (millions of United States dollars):				
1950	...	– 4.1	30.5	26.4
1951	0.3	– 4.5	61.9	57.7
1952	0.6	– 1.2	94.6	94.0
1953	9.9	2.3	84.7	96.9
1954	10.7	– 0.5	88.4	98.6
1955	1.7	3.5	90.7	95.9
1956	4.8	18.6	65.2	88.6
Total	28.0	14.1	516.0	558.1
India (millions of rupees):				
1950	– 88	87	21	20
1951	– 24	385	14	375
1952	– 19	527	119	627
1953	– 77	–2	179	100
1954	74	50	146	270
1955	–111	135	348	372
1956	–157	180	366	389
Total	–402	1,362	1,193	2,153
Indonesia (millions of United States dollars):				
1950	–16	– 8[ab]	39	15
1951	– 8	39	1	32
1952	–19	19	7	7
1953	1	– 7	2	– 4
1954	– 2	–18	2	–18
1955	1	–16	1	– 4
1956	1	22	1	24
Total	–42	41	53	52
Japan (millions of United States dollars):				
1950	5	—	361	366
1951	34	– 2	155	187
1952	38	–72	5	–29
1953	–18	–12	—	–30
1954	13	– 1	—	12
1955	85	49	–9	125
1956	– 2	22	–8	12
Total	155	–16	504	643
Korea, southern (millions of United States dollars):				
1953	...	—	194	194
1954	...	—	139	139
1955	...	– 6	252	246
1956	...	—	308	308
Total		– 6	893	887
Pakistan (millions of rupees):				
1950	—	– 80	—	– 80
1951	25	–493	– 2	–470
1952	–35	326	4	295
1953	– 9	54	276	321
1954	34	96	39	169
1955	– 3	18	269	284
Total	12	–79	586	519
Philippines (millions of pesos):				
1950	28	68	309	405
1951	10	– 7	30	33
1952	56	–16	52	92
1953	102	– 4	38	136
1954	88	–34	46	100
1955	119	82	48	249
1956	111	15	67	193
Total	514	104	590	1,208
Thailand (millions of United States dollars):				
1950	...	– 0.6	– 2.7	– 3.3
1951	...	–63.2	0.4	–62.8
1952	...	59.6	3.0	62.6
1953	...	11.9	4.5	16.4
1954	...	3.9	6.4	10.3
1955	...	15.4	14.1	29.5
Total		27.0	25.7	52.7

Sources: International Monetary Fund, Balance of payments statements (Washington, D.C.).

[a] Data are incomplete, especially as to reinvested profits, so that the statistical evidence must be considered as inconclusive. This is believed to be particularly true in the case of India.

[b] Excluding transactions arising from the withdrawal of Indonesian participation in subscriptions of the Netherlands to the International Monetary Fund and International Bank for Reconstruction and Development.

The net flow of inter-governmental and international grants is shown in table 9 under "official donations" in the balance of payments accounts. All the ten ECAFE countries listed therein show a substantial net inflow of grants. Indeed, the amounts are generally much larger than the combined figures of private capital and official and bank long-term capital. They were especially substantial in the case of China (Taiwan) and southern Korea, and are of increasing importance for India and Pakistan.[71]

Public Investment

The rate of economic development will depend not only on domestic savings and capital inflow, but also on the way in which these financial resources are invested. Ideally, capital financial resources should be allocated to different types of investment in such a way as to achieve an optimum pattern, but in practice this ideal can naturally seldom be achieved. The criteria for such an allocation will be discussed in section on page 64 below. This present section and the following ones will deal with the problem of public and private investment, particularly in agriculture.

Sphere of public investment, particularly in agriculture

Irrespective of differences in economic philosophy, governments have to undertake some investment because (1) certain projects are not inherently attractive to private investment but promise social gains and provide external economies, (2) the returns on them are too remote, too slow and too uncertain and (3) they usually involve too large an investment for private investors, particularly since the technological knowledge and modern entrepreneurial ability needed to finance, organize and manage large modern enterprises are in short supply in the private sector of under-developed countries.[72] In the socialist economy in mainland China, however, public investment is the major source of capital formation and India also appears to anticipate a rapid rise in public investment.

In formulating agricultural development plans, the countries of the region appear to have taken these considerations into account. Thus, most governments assume responsibility for irrigation and multiple-purpose river basin development projects involving large amounts of capital investment and benefiting vast areas. Some governments, too, are also undertaking large land reclamation and development projects, re-afforestation, agricultural research, experimentation and extension services and community development.[73]

Forms of public investment

Government financing of development may take the form of direct investment, of loans, subsidies or grants. Direct government investment usually entails the setting up of public enterprises in the form of departmental organizations or government-controlled corporations. In agriculture, extension services are usually of the former type, while the latter group usually includes the manufacture of fertilizers, pesticides, farm machinery and implements, as well as multiple-purpose river development schemes (e.g. the Damodar Valley Corporation in India, the Hokkaido Development Corporation in Japan).

Governments may also invest jointly with private capital on a limited liability basis. Such enterprises are considered as business entities outside the government framework. They are free from day-to-day Treasury control, but are usually supervised by a board of directors appointed by the government and the private shareholders. This form of organization is usually preferred for an enterprise when its political importance is relatively small or when the ultimate goal is to transfer ownership completely to the private sector. It is a good way of assuring the representation of the public interest. Through mixed-ownership coroporations, too, the government can mobilize private capital and stimulate development by offering financial and technical assistance. Many ECAFE countries prefer this form of organization to departmental organizations.[74]

Governments may also delegate to special bodies the responsibility for deciding upon and making investments in certain types of projects while limiting the scope of such investments by government or parliamentary charters and by influencing investment through the appointment of representatives to their board. Such indirect investments, either entirely by the government or jointly with private capital, may take the form of subscriptions to the equity capital of the special bodies, or of initial and recurring allocations of working funds. Examples of this kind of special body in agriculture are afforded by the Agricultural and Rural Development Corporation of Burma, the Ceylon Development Finance Corporation, the Agriculture, Forestry and Fisheries Finance Corporation of Japan, the Rural and Industrial Development Authority of Malaya, the Agricultural Development Finance Corporation of Pakistan and the Rehabilitation Finance Corporation of the Philippines.[75]

Governments may also extend loans to public as well as private enterprises. In the field of agriculture, governments usually grant indirect loans to the agriculturalists through special financial institutions, special funds and/or corporations. Governments may also purchase debenture bonds of land mortgage banks or agricultural financial institutions.

Besides issuing loans and making investments, governments may also finance or encourage private investment through grants and subsidies, for instance, to the agricultural community for "social overheads" such as schools, hospitals and sanatoria or community buildings. They may subsidize the cultivator, either individually or collectively, in respect of chemical fertilizers, pesticides, seeds and so on and by establishing support prices for certain agricultural products, for example, rice in Ceylon.

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[71] In India, for instance, during 1955-1956, external official donations at an annual rate of more than Rs 350 million in one year were double the net inflow of official and bank long-term capital.

[72] However, in under-developed countries, modern enterprise and technical ability is lacking not only in the private sector, but also appears inadequate in public enterprises.

[73] For the percentage distribution of planned public expenditure among various agricultural fields, see section II above, "Agricultural Development Plans of the Countries of the ECAFE Region", table 1.

[74] United Nations, *Economic Bulletin for Asia and the Far East*, vol.VII, No.3, November 1956, p.36.

[75] See P.K. Ray, "Agricultural Financing in a Planned Economy", a paper submitted to the Centre on Agricultural Financing and Credit for Asia and the Far East.

Private Financial Investment

Problems of projecting private investment in agriculture

In under-developed countries, a large part of the investment in agriculture, trade, construction and small-scale industries in the private sector is financed by direct savings, that is, by the savings of persons undertaking the investment or by the savings of their friends and relatives.[76]

In the development plans of several countries, the production targets are given by estimated investment in both the public and private sectors. In these plans where investment programmes for each sector are shown separately, the estimates for the public sector are the more precise. In the second five-year plan for India, it was observed that "dependable estimates of total investment in the private sector are not available, and it is not possible to present anything more than a broad guess of the likely trends over the next five years".[77] In fact, on the basis of rough calculations regarding the trends of investment over the last five years and of the known investment programmes in certain fields, a figure was worked out for the probable level of private investment by sector over the second five-year plan period. The figure for agriculture and village and small-scale industries (in the private sector) is tentatively placed at Rs 3,000 million, as compared with the firmer estimate of Rs 5,680 million for agricultural and community development and Rs 4,860 million for irrigation and flood control in the public sector.

The Philippine five-year development programme (1957-61) also contains the planned investment figures for the private sector by fields.[78] These figures were based more on the prospective investment opportunities than on past trends, on which data were scanty. For instance, private investment in fisheries was regarded optimistically, with good prospects in offshore fishing for tuna, in fish canning, and with the development of fishponds and an increase in public swamplands. It was also considered that there were opportunities for private investment in the production of ramie, provided the necessary processing and manufacturing facilities were available. The total estimate of private investment in agriculture was pesos 611 million for the five-year period, as compared with ₱307 million for public investment in agriculture.

In projections of private investment, consideration should be given not only to past trends but also to inducements resulting from public investment and to the influence of government policies. The land reclamation, flood control and irrigation schemes executed by the government will induce large private investment on both the newly available and the currently cultivated land. The supply of better seeds, fertilizers and pesticides by government agricultural extension services, especially if at subsidized prices, also tends to induce more investment by the cultivators, at least in working capital. Such increases will be even more likely if governments provide credit and marketing facilities as well. Other governmental measures which might induce investment are land reform, price supports, and stimuli given by foreign trade, foreign exchange and fiscal policies.

Extent to which private savings in agriculture are used for non-agricultural investment

As mentioned above, savings in the agricultural sector of under-developed countries are small. The problem of mobilizing "surplus funds" in the agricultural sector for investment in agriculture is even more serious. Besides amounts immobilized by the peasants' high propensity to hoard, a significant proportion of the "surplus" is skimmed off in the form of rents by landlords, interest by moneylenders or profit margins by merchants. If it is assumed that agriculture produces 50 per cent of national income, that non-cultivators own 40 per cent of total farmland and that rent represents 20 per cent of agricultural income, rent alone would amount to 4 per cent of national income.[79] The part of their income spent by landlords or money lenders[80] on investment in the non-agricultural sector, for instance in urban houses, constitutes a drain on the savings in the agricultural sector.

Inadequate statistics of income distribution and of the components of expenditure in the agricultural sector rule out an assessment of the relative magnitude of such a drain, but a rough estimate for India in 1950-51 places rent on land and interest on cultivators' debt at from one-fourth to one-third of the income originating in agriculture.[81]

On the other hand, savings by town dwellers are not likely to be invested in rural areas. Owing to the risk and to the administrative difficulties involved, private financial institutions such as commercial banks are not anxious to finance rural schemes, and, while they may provide funds to plantations and moneylenders in rural areas, they do not do so to the peasants. The all-India rural credit survey revealed that, in 1951-52, commercial banks in India supplied only about one per cent of total reported private credit to cultivators.

[76] In the survey year 1955/52, loans from relatives accounted for 14 per cent of the reported borrowings by cultivators. Reserve Bank of India, *All-India Rural Credit Survey: The General Report*, abridged edition, pp. 62-63.

[77] Planning Commission, *Second Five-Year Plan* (Delhi, 1956), p.57.

[78] *The Five-Year Economic and Social Development Programme*, for 1957-1961, adopted by the National Economic Council on 3 January 1957 (Manila, part VI).

[79] See E. de Vries, "The Extent of Agricultural 'Drainage'", a paper presented to the Centre of Agricultural Financing and Credit for Asia and the Far East, Lahore, September 1956. In Japan, "rental income of persons", which consists of farm rents, site rents, house rents and accrued rents for owner-occupied building lots and houses, etc., represented 11 per cent of national income in 1930. In the early Meiji period, for which no national income and rent estimates are available, "the feudalistic tributary payments system was replaced by a landownership farm rent and land tax payments system. Landowners usually sent their youngsters to cities for education and they became leaders in the modernization of Japan. Landowners accumulated wealth by receiving farm rent from the tenants and, in turn, invested their money in various enterprises or deposited their money with banks which channelled savings into industries". (S. Okita, *op. cit.*, pp. 6-7).

[80] In 1951/52 about 70 per cent of the total reported private credit supplied to cultivators was from money-lenders. It is also reported that, in some rural areas, the proportion of private borrowings bearing a rate of interest of 25 per cent ranged from 27 per cent to 70 per cent. Reserve Bank of India, *op. cit.*, chapter 9.

[81] S.J. Patel, "Distribution of National Income in India, 1950-51", *Indian Economic Review* (Bombay, February 1956).

In the case histories of several industrialized countries, early industrial development was stimulated by the rise in agricultural productivity[82] and by the siphoning off of the increase in agricultural income, through taxation, forced savings (inflation) or the compulsory delivery of agricultural products. From 1885 to 1915, for instance, when Japan was developing rapidly, the productivity of the farm worker more than doubled owing to the liberal use of fertilizer, better seeds, improved techniques and so on. There appears, however, to have been only a limited improvement in the living levels of the farm population because of the heavy land tax. In the early years of modernization, land tax yielded more than 90 per cent of the Central Government's tax revenue (93.3 per cent in 1873), and it took over 40 years before this ratio fell below 10 percent. It was 51.8 per cent in 1895 and 7.5 per cent in 1919. Only a relatively small share of the funds was invested in irrigation, flood control, land improvement and reclamation. The greater part was channelled by government action[83] into industry. According to Professor Lewis, "the USSR is another case where farm incomes per head were kept down, between the world wars, in spite of farm mechanization and the considerable release of labour to the towns".[84]

Of more recent development plans, that of mainland China appears to have involved a net transfer of funds from agriculture through the government's fiscal policy. During 1953-1957,[85] while the Government received an amount of 15,191 million yuan from taxes on agriculture, it spent only 8,378 million yuan, or about 60 per cent of the agricultural tax receipts, on agricultural development.[86] Moreover, a substantial proportion of the receipts from "State enterprises", not included in agricultural taxes, is from State trading in various agricultural products, such as foodgrains, vegetable oil and raw cotton, and it contains a large element of taxation affecting the agricultural sector. The transfer of funds from the agricultural sector to the non-agricultural sector through government policies, therefore, is probably even greater than is suggested by the difference between agricultural tax receipts and Government expenditure on agriculture.

Non-Financial Aspects of Investment

In the predominantly agricultural communities of Asia, composed largely of subsistence-forming families, much of the investment by individuals and communities has no counterpart in money savings or payments. It is therefore usually not reflected in statistics of savings and investment.

Accordingly, only a few indications can be given of the relative importance of non-monetized rural investment. In mainland China, only 3,260 million yuan, or 7.6 per cent of total State investment in basic capital construction in the first five-year plan, is devoted to agriculture (in contrast to about 41 per cent in industry), whereas, "fixed capital invested in agricultural production by the peasants themselves is estimated at 6,000 million yuan".[87] On that basis, a calculation shows that rural capital formation based on individual and community efforts comes to about 7 per cent of national income. Only a part of this saving, however, can be considered, on a strict interpretation, as non-monetized investment.

In India, data obtained in the second round of the National Sample Survey led the Taxation Enquiry Commission to estimate rural investment of a predominantly non-monetized type at more than one-fifth of the net aggregate investment in the economy, or roughly 1.5 per cent of the national income.[88] About one-third of such investment was devoted to land improvement, one-half to construction of houses, tanks, bunds and drains and the rest to agricultural and other implements.[89]

In Indonesia, the National Planning Bureau put investment in the village community sector (including investment by individual small families) at between one and one and a half per cent of national income.[90]

Reference has been made elsewhere[91] to the need for mobilizing the "disguised" saving and investment potential in disguised unemployment. This situation is frequent in the densely populated agrarian economies with a low level of technology and an inefficient pattern of organization, especially in the agricultural sector.[92] To mobilize this potential, countries are relying to an increasing extent on community development in the construction of economic and social overheads.[93] This

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82 In England, during the formative period of the industrial revolution in the second half of the eighteenth century, agricultural productivity rose, according to the researches of M.K. Bennett, from 12½ bushels per acre to over 20. During Germany's industrial revolution in the second half of the nineteenth century, the yield per hectare of wheat rose from 1.2 to 2.7 tons, that of potatoes from 8 to 22 tons. Colin Clark, "The Development of Agricultural Productivity", *The Eastern Economist*, Economic Growth Supplement (New Delhi, 26 April 1957).

83 Bruce F. Johnston, "Agricultural productivity and economic development in Japan", *Journal of Political Economy* (Chicago, December 1951), and S. Okita, *op. cit.*, p.7.

84 A.W. Lewis, *op. cit.*

85 1957 figures are budget estimates.

86 Budget reports of the Finance Minister of the Central People's Government of the People's Republic of China.

87 *First Five-Year Plan for the Development of National Economy in the People's Republic of China* (People's Press, Peking, August 1955, in Chinese), p.26.

88 *Report of the Taxation Enquiry Commission*, vol. 1 (Delhi, 1955), p.138.

89 *The National Sample Survey, No. 2, Tables with notes on the Second Round* (Calcutta, December 1953), p.9.

90 "Some Explanations on Indonesia's Five-Year Development Plan", *Economics and Finance in Indonesia* (Djakarta, November 1956), p.667.

91 See above, section I on "Implications for Agriculture of Economic Development, particularly Industrialization".

92 Lack of space precludes an examination of the concept, measurement and the actual extent of the un-and under-employment prevailing in the agricultural sector of the region. The indications are that, in areas of acute population pressure, the loss of such manpower may be computed, on certain assumptions, at 25 to 30 per cent of the rural labour force.

93 Among the economic overhead projects, mention should be made of the following: (*a*) Road building, especially to rich farm areas, and feeder lines from market to producing centres; (*b*) village drainage work; (*c*) construction of catchment areas, bunds and canals and other irrigation projects; (*d*) land colonization and settlement schemes; (*e*) building storage and marketing centres; (*f*) afforestation and tree planting; (*g*) soil conservation, especially contour bunding; (*h*) construction work on power projects. Social overhead projects, such as the building of schools, medical dispensaries, sanitary works for sewage disposal and protected water works, etc., building of community centres, etc., also involve the employment of considerable numbers of people. Needless to say, it would not be possible for the government to undertake the full financing of the construction of all these works and services. Heightened community action can handle these at minimum cost to the government. The government can, of course, provide financial assistance which should not come to more than a fraction of the going wage rate.

movement has become increasingly important in recent years in, for example, Burma, India, Pakistan and the Philippines.

Broadly speaking, the projects that can be undertaken on these lines are of two types: (*i*) local projects yielding immediate benefits to the individual and the community; (*ii*) national projects benefits from which percolate through to the local community some time after completion.

Community development can also make a significant contribution to maintaining the capital installations already available in the rural areas. Thus, in the rural communities of Asia, it has been a traditional practice to utilize surplus manpower through labour levies for the maintenance of irrigation channels, tanks, roads and other facilities. The extension of this practice can play an important role in ensuring capital maintenance in the rural sector. However, much more experience has to be gained in the mobilization of surplus labour for capital formation in the region. Although the community development movement in one form or other has penetrated into a number of countries, a critical evaluation of its achievements in terms of capital formation has still to be attempted.[94]

In certain circumstances, the contribution of surplus rural labour to the creation of national capital works may be quite substantial. In this connexion, mention may be made of the plan to use surplus labour in mainland China on such labour-intensive investment projects as highway construction, railway road-bed construction and water conservancy work. It is estimated that, between 1949 and 1952, about 20 million people worked on these projects and that the earth moved was about 1,700 million cubic metres.[95] Subsequently, with the "high-tide of agricultural co-operation", it was estimated that, owing to the "active collaboration between the State and the agricultural co-operatives", agricultural construction between 1953 and 1956 covered the reclamation of 4.3 million hectares of wasteland and irrigation works affecting 9.4 million hectares.[96]

The effective utilization of the vast reservoir of surplus manpower in this region depends on several factors, such as the priorities and channels of investment, the types of work involved, the size of project, the incidence in time and space of the benefits and, perhaps most important of all, on the degree to which individual, community and social objectives in respect of development converge. In addition to these factors, there may be certain socio-economic difficulties in mobilizing the investment potential of surplus labour.[97]

Experience in the Use and Practicability of various Techniques for Resource Allocation and Investment Priorities

From a purely economic viewpoint, the question of resource allocation between the agricultural and the non-agricultural sector and the related problem of the determination of investment priorities turn on the structure and evolution of final demand for the products of the two sectors and on production methods and techniques, as well as the production inter-relationships between the two sectors.

In this region, as elsewhere, as income increases, the demand for agricultural products grows proportionately less than that for non-agricultural products and services. With regard to production, the agricultural sector is dependent on the supply of requisites and services from the non-agricultural sector, while the latter is dependent on food and raw materials and to some extent on the labour force released from the agricultural sector. In this region, agricultural production is, by and large, far less dependent on non-agricultural inputs (e.g. fertilizers, equipment, services, etc.) than non-agricultural production on agricultural inputs, although, as economic development proceeds, the interconnexion between the two sectors increases.

The methods (or techniques) of production may be expressed by the ratios between the input of resources of factors and the output associated with their use. The application of these ratios to the agricultural sector poses special problems in view of the variety of influences operating on agricultural production, in contrast to the situation in the non-agricultural sector. Output variations in agriculture may be quite wide because of climatic and other natural factors. Moreover, since land is an important input factor in agricultural production and since its supply is inelastic, the law of diminishing returns applies. After a certain point, increases in output depend more and more on changes in the combination of inputs and/or changes in farm organization and on the use of improved farm techniques.

The agricultural sector, as at present organized in most countries of the region, offers great scope for the introduction of more productive techniques (in relation to seeds, cultivation practices and so on), and for organizational improvements, such as the consolidation of small holdings, the expansion of the unit of cultivation to an economical size through co-operative farming, or the pooling of scarce productive resources, such as equipment and animal power, or the better use of existing resources.

The production function and cost-price relationships in the agricultural sector may be radically altered if certain external economies or overhead facilities can be provided. For instance, in most countries of the region, the absence of adequate transport and communication

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94 This point is emphasized in the various progress reports by the Programme Evaluation Organization on community development in India.

95 People's Press, *New China's Economic Achievements, 1949-1952* (Peking, 1952), p.196. According to K. Sain and K.L. Rao, *Report on the Recent River Valley Projects in China* (Delhi, 1955), "The outstanding reason for the great speed of execution of the projects, specially of those involving large volumes of earthwork, is the mobilization of peasants during their spare time for construction of water conservancy works. For instance, the great irrigation canal of North Kiangsu Province was finished by sheer weight of men in the very short period of 80 days, doing earthwork at the rate of 3 crore (30 million) cubic feet per day without the help of any mechanical equipment", pp.181-182.

96 "Report of the Prime Minister on the Work of the Government to the Fourth Session of the National People's Congress", *Ta Kung Pao* (Hong Kong), 27 June 1957.

97 Some of these are discussed in R. Nurkse, *Capital Formation in Under-Developed Countries* (Oxford, 1953).

facilities has for long held up the expansion of output in agriculture, and of forestry in particular. The problem of preservation and storage, especially in transport, is important in the case of perishable agricultural commodities such as meat, milk, fish, fruits and vegetables.

The present section discusses the practicability of using such techniques or concepts as capital-output ratios, standard unit requirements, input-output analysis, accounting prices and social costs and returns as means for resource allocation between the agricultural and the non-agricultural sectors and for the determination of investment priorities.

The incremental capital-output ratio seeks to represent the amount of additional investment required to produce a unit of output. The main limitation of this concept is that it assumes a stable relationship between capital and output. In fact, the sectoral capital-output ratios vary widely with the stage of development of the economy, the pattern of investment, the relative importance of non-capital inputs, and the amount of investment in complementary sectors. For the reasons mentioned earlier, these limitations are particularly serious in the case of the agricultural sector.

In the computation of capital-output ratios in agriculture, account must be taken of the influence of the weather on output variations. On the investment side, own-account construction and land improvement by the farm household should, if possible, be included. Calculations of project or sub-sector ratios must allow for the complementary investments needed to support the given project or sub-sector.

Mainly because of the large scope for raising yields through the application of non-capital inputs, the capital-output ratio in agriculture appears in many under-developed countries of the region to be lower than in the non-agricultural sector. For instance, the ratios observed fall within the range of one to one and a half in the case of Burma, India[98] and the Philippines, and are probably one-half of the ratios in the non-agricultural sector.[99]

The limitations of the capital-output ratio when applied as a priority criterion are more serious than when used as a parameter for estimating investment requirements. For example, quick maturing projects with a lower capital-output ratio in the short run do not necessarily have a lower ratio on the long-term view. Because of inter-sectoral or project complementarity, a project with a higher capital-output ratio does not necessarily indicate a lower priority, as may be illustrated by the case of basic investments in transport in an agricultural region.

Resources budgeting may cover physical inputs (e.g. raw materials or finished intermediate products) or factor services (e.g. land, labour and equipment) or financial resources (e.g. domestic or external funds). Such budgeting constitutes an important method of co-ordinating intersectoral and inter-industry resource flows. In the case of strategic material inputs (e.g. cement, coal, steel), the system of commodity balances—requirements as against availabilities—is extensively used for both agricultural and non-agricultural products in the centrally planned economy of mainland China and also on a very limited scale in the formulation of the second five-year plan in India. In setting up of such balances, use may be made, as in Japan, of standard unit input requirements[100] to examine the mutual consistency of the targets.

The application of this concept to the agricultural sector calls for detailed studies of land utilization, crop production, fertilizer inputs and feed-livestock relationships. The commodity balance method may also be useful in registering the utilization of agricultural materials in the non-agricultural sector.

In essence, input-output analysis consists in determining the direct and indirect input requirement by industries, and final cost (labour, capital, imports, etc.) categories per unit of final demand. Through the use of various technological coefficients relating to the employment of such factors as capital and labour, it is possible to arrive at the resource requirements for a given bill of goods. Comparing the resulting resource requirements for each sector, it is possible to plan for the allocation of additional units of resources sector by sector.[101]

It is also claimed that this method can be used to determine priorities. In this way, those sub-sectors with relatively favourable chain repercussions (direct and indirect) may be given priority over those with a lesser impact. In the case of large schemes (such as multiple-purpose river valley projects), it is possible to calculate the total contribution of each project in terms of its repercussions on capital, employment and foreign exchange. Investment projects can then be arranged on a priority basis, or alternative investment projects can be compared in terms of the scarce resources they consume.

The application of input-output analysis to the agricultural sector is limited by considerations relating to the stability and pattern of production in agriculture. In addition, since an overwhelming proportion of the output in agriculture in this region is directly allocated to peasant households, and another portion is exported, only a comparatively small part appears in the form of intermediate inputs in the domestic economy. The agricultural sector is only slightly dependent on inputs from the non-agricultural sector, as the larger part of inputs is accounted for within the farm sector.

Because of the limited inter-sectoral relationship between the agricultural and non-agricultural sectors, the input-output method may not yield much better estimates of resource requirements than alternative methods based

98 The capital-output ratio has been used for sectoral allocation of resources in the formulation of the second fire-year plan.

99 In these estimates, irrigation is included under agricultural investment, but not power or transport. Assuming that agriculture and non-agriculture contribute equally to national income, that the incremental capital-output ratio in agriculture is only one-half that in non-agriculture (say 2 and 4 respectively) and that the income elasticity of demand for agricultural products is similarly one-half of that for non-agricultural products (say 0.75 and 1.50 respectively), it can be calculated that, for roughly every one unit of additional investment in agriculture, four units of investment in the non-agricultural sector are required.

100 The concept of standard unit input requirements assumes a stable set of input coefficients, which, for the reasons mentioned already, are not appropriate, especially in the case of agriculture, and therefore need considerable modification.

101 It should be noted that factor coefficients have to be worked out separately for each sector distinguished in the input-output table. This implies that input-output analysis cannot do away with a detailed study of sectoral requirements.

on estimation of direct requirements.[102] Moreover, because of complexities of definition, requirements of statistical data, difficulties of computation and the experimental stage of the technique, it has not been possible to apply input-output analysis to development planning in the region.

Input-output tables have, however, been constructed in India and Japan. In the latter country, moreover, a partial input-output table has been set up for "agriculture, forestry and fishing." In this connexion, it may be useful to explore the value of setting up partial input-output tables for those sectors with uncomplicated inter-sectoral relationships such as major export crops in one country.

Whatever the criteria for the allocation of resources and investment priorities, the measurement of present and future benefits from a given project, and of the costs that are incurred in obtaining such benefits, raise special problems.[103]

The use of accounting prices, however attractive it may appear, may entail a certain arbitrariness in evaluating "true" prices for factors of production. These "prices" have to be assumed within certain ranges, and project priorities may then be indicated by a trial-and-error method. The shifts in such accounting prices are difficult to predict. They are often attributable to the development programme as a whole. The actual result of applying the method of accounting prices to the current position of relative factor endowments in most countries (namely, scarcity of capital and foreign exchange, and abundance of unskilled labour) would be to favour, more than long-run considerations would warrant, those projects which are labour-intensive, which create or save foreign exchange and which promise a quick yield on the capital employed.

Accounting cost has its special limitations as a criterion for the allocation of resources between the agricultural and the non-agricultural sectors. Unpaid labour is generally not included in the cost accounting of the farmers. On the other hand, if the actual rate of wages is assigned to all agricultural labour, the cost would probably be too high, for much of the labour is under-employed. The increase in productivity in the agricultural sector, which releases surplus labour from farms, should also be counted as a social return in the development of the agricultural sector. On the other hand, certain parts of the infra-structure, such as transportation, which contributes to increased farm income, should be taken into account as a cost.

The essence of the method of social cost and returns is to correct the discrepancy between private and social costs and prices, between social and private evaluation of future benefits and costs and between the net direct profitability of a given project and its total yield (direct plus indirect) in the economy as a whole.

Benefit cost analysis, which has long been applied to water resource projects, especially in the United States, has gained acceptance in several countries of the region, although methods of measuring it vary widely.

Essentially, the benefit cost technique seeks to evaluate a project by finding the ratio between the value of production derived from a project and its cost. This approach is therefore similar to the profitability criterion. However, in the interpretation of both benefits and costs, a distinction is also made between direct and indirect effects. This is especially important in the case of secondary benefits, actual or potential. There is considerable controversy as to the nature, extent and measurement of seconadry benefits.[104]

From the point of view of production techniques and production inter-relationships as well as of growth of demand, a given increase in income, and hence in final demand, under the circumstances prevailing in this region, would seem to require a proportionately greater allocation of new investment resources to the non-agricultural sector than to the agricultural sector. However, the extent to which the two allocations diverge in practice would depend on various factors such as the relative degree of urgency of demand and the relative ease with which supplies can be augmented, that is, on the emerging demand and production functions in the respective sectors, which differ from country to country, from region to region and from one point in time to another, especially in the agricultural sector.

It is in assessing these economic and technical relationships that the techniques discussed here may prove useful. However, each of these techniques suffers from several limitations, especially when applied to the agricultural sector in this region. Any mechanical application of them is therefore bound to be misleading. Furthermore, they have to be modified considerably in practice in the light of broad economic and social considerations, such as the wish to achieve self-sufficiency in food, the diversification of agricultural and industrial production, and a reduction in economic fluctuations, which frequently originate in the export markets for agricultural projects.

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102 On the other hand, calculations based on partial methods (e.g. capital-output ratios) exaggerate the relative capital requirements of agriculture, which obtains a comparatively small share of its inputs from other sectors. The application of input-output analysis to resource allocation tends to correct this bias.

103 Firstly, there is the problem of pricing the goods and services obtained and the various factor costs incurred in the process. Secondly, both benefits and costs (expressed in terms of money) have to be compounded over time, i.e. over the life of a given investment project. Thirdly, account may have to be taken of the chain repercussions of a given project. If the market mechanism does not reflect "real" or "intrinsic" prices, it may be necessary to evolve a set of social prices or costs.

In the application of market prices to a system of social pricing, the first correction to be made is to eliminate taxes and subsidies so as to reflect factor costs. Going beyond this, it may be possible to correct the various factor prices, in accordance with what are called "accounting prices", which take into account the relative scarcities of factors of production. When there is considerable under-employed labour, the social cost of employing such labour is much less than the market rate of wages. In the case of such non-scarce factors, the "true price" paid may be equated to the "opportunity cost", which, in the case of agricultural labour in most countries of the region, may be considered negligible. The accounting price in the case of capital resources, which are relatively short in under-developed countries, can be assumed to approximate to the free market rate rather than to those fixed by legal fiat. In the case of foreign exchange also, the equilibrium rate of exchange that would be established under conditions where there are no restrictions on foreign trade would be different from the fixed official rate. In the case of land, the accounting price would be equated to its opportunity cost in an alternative use.

104 John M. Clark, Eugene L. Grant and Maurice M. Kelso, *Secondary or Indirect Benefits of Water-use Projects*, Report submitted to the United States Bureau of Reclamation (Washington, D.C., 1952).

VI. INCENTIVES AND INSTITUTIONAL FACTORS INFLUENCING THE RATE OF AGRICULTURAL DEVELOPMENT[105]

Three main avenues of approach are open to a government when considering measures for the achievement of the desired goals of production in agriculture:

(*i*) The devising of direct technical measures—such as irrigation, land reclamation and settlement, pest and disease control, fertilizing of crops, mechanization, etc.—and the allocation of resources for their implementation;

(*ii*) The provision of direct economic incentives designed to assure to cultivators a reward for increased output and to encourage efforts in the desired directions;

(*iii*) The promotion of changes in the institutional structure that may be needed or desired to provide additional economic incentives and to facilitate the adoption, and heighten the effectiveness, of the technical and economic measures under (*i*) and (*ii*).

Consideration is given to the technical measures under section IV above; the mobilization and allocation of investment resources required was examined under section V. This section will discuss incentives and institutional factors.

Producers' Price Policies

The role of price policy in assisting in the implementation of agricultural development plans is twofold:

(*i*) to guarantee adequate price levels to the producer;

(*ii*) to offer special incentives to the producer to increase the output of certain products on which special emphasis is placed in the development plan.

The case for special measures to assure adequate prices to farmers is based on the low elasticity of demand for food products. A small excess of supply of food crops over effective demand is likely to cause a disproportionate fall in prices. Thus, the cultivators may suffer a reduction in incomes if there is a good season or if they increase total output by the adoption of better methods at a faster rate than demand develops for food products.

Incentive prices are a special case of price guarantee and are designed to support plans for greatly increased production in particular directions. The intention is to offer the producer a margin of return which will more than cover his costs in the production of the desired products and be sufficient to induce him to apply a much greater effort in those directions. The use of an incentive price assumes that the pattern of farming and the approach of the farmers are flexible, that the incentive element in the price is not dissipated in the marketing process and that the farmer will evaluate the incentive and respond to it. It is doubtful how far these assumptions hold good in some countries of Asia and the Far East.

If it is to be effective, an incentive price must be judged by the cultivators to be high in relation both to the prices of goods bought by them and to the prices of other agricultural products that compete with the desired product for the use of land, labour, and production requisites such as fertilizers. Incentive prices should be announced well in advance of the planting season.

Policies of assuring adequate prices and giving price incentives can be implemented either by setting the effective price which producers are to receive for all or a stated part of their marketed output, or by guaranteeing them a minimum price.

The effective implementation of a price fixed to cover all or a stated part of the marketed output presupposes the compulsory delivery of the output affected. This means that the government must lend its authority to the establishment of an organization capable of determining the price, purchasing the produce concerned from farmers throughout the country at a fixed price, storing, processing and marketing or distributing the produce and accounting for funds. In countries of Asia and the Far East, this method has been used by governments to procure supplies of agricultural products for controlled distribution in times of shortage or for government export schemes, as well as for the protection of farm prices. The usual practice has been to create a special institution or government department, and to utilize its rural branches or farmers' co-operative associations or private traders to do the purchasing, storage, processing and selling in accordance with instructions.

A policy of guaranteed minimum prices protects the cultivator by setting a minimum below which his price cannot fall and above which he has the benefit of using the free market. It is necessary to set up an official procurement and distribution agency, which will be required to buy, at the official price, all produce offered by the cultivators. Delivery of produce to the agency is voluntary. Official purchases under the guarantee will therefore usually be made only when the price offer in the market falls below the stated minimum. At other times, the marketing of the farmers' produce will be carried on through the regular trade channels. It follows that the official marketing organization will not have to be so large and elaborate as it would be if it had to operate a policy of over-all fixed prices and that the administrative problems will not be so great.

[105] E/CN.11/DPWP.3/L.5, a paper prepared for the Third Session of the Working Party on Economic Development and Planning. The sections on producer price policies and on direct subsidies to producers and related incentives were drafted by the ECAFE secretariat; the section on institutional factors, by the secretariat of the Food and Agriculture Organization of the United Nations.

The holding of buffer stocks or reserves is a means of implementing minimum price policies for storable products.[106] When the market price falls to near the fixed or minimum level, the removal of a relatively small amount of supplies from the market by purchase for stock holding may be sufficient to stabilize the price. Conversely, if prices begin to rise against consumers in a period of temporary shortage after stocks have been built up, releases from stock will have a moderating influence. Since reserve stocks of foodgrains are held by most governments of the region against crop failure or for other reasons, the use of such reserves as buffer stocks for limited open-market operations may, in the absence of highly abnormal fluctuations of supplies or prices, constitute one of the simplest and least costly means of implementing price policies, in the interests of both producers and consumers.

Experience in countries of the region

Price policies for agricultural products in countries of the region were developed mainly during and after the war, when the shortage of essential foods compelled governments to control distribution and prices in order to check inflations and maintain a minimum supply to the low income groups. These problems faced not only food-deficit countries but rice-surplus countries as well, because the keen foreign demand for rice would have driven prices to levels out of the reach of the domestic population and caused acute shortages at home. The price policies were designed to protect consumers, and the details are therefore not of direct interest in this section.

As, however the policies also provided for fixed prices to producers, elaborate organizations of procurement, as described above, were set up. During the shortage period, compulsory delivery systems were in force in most deficit countries for rice and sometimes for other foodgrains.

In their attempts to find a price for paddy not too high for the consumer and not so low as to discourage production, governments had to proceed by trial and error, and in some cases prices had to be revised rather frequently. In Malaya, for example, the fixed price for paddy was modified three times between July 1945 and January 1957. In 1947, the price was doubled as an incentive for expanding production, and acreage and output reached a record level. However, heavy consumer subsidies on domestic rice became necessary and the procurement price was reduced by 25 per cent in the following season with no marked effect on production.

Although fixed prices were usually set at levels thought to be fair to producers, and later at incentive levels, farmers were often able to get still higher prices outside the procurement system, and to some extent this diminished the success of the procurement and price control policies. The obligation to deliver surplus output at fixed prices may also have discouraged many producers from expanding production. The policies were therefore modified before long. Malaya abolished compulsory procurement in 1949 and Ceylon in 1951. In Japan, domestic trade in all foods except rice was gradually restored to private traders over the period December 1949 to 1952. In India, compulsory procurement was relaxed or eliminated from time to time in the light of crop results but had to be re-introduced in bad seasons. China (Taiwan), southern Korea, East Pakistan and Japan currently operate fixed price and procurement policies for rice in order to help curb inflation and safeguard farm incomes.

After abolishing compulsory procurement, both Malaya and Ceylon continued to fix procurement prices, which thus became guaranteed minimum prices. While shortages lasted, free market prices were well above the minimum. As an incentive to production, both countries raised the minimum prices in 1952. In Ceylon, the increase was considerable. As an additional incentive, it was announced that the level would be maintained for five years. It was not until market prices of rice fell in 1954 that farmers in Malaya and Ceylon sold much of their rice to the government under the guaranteed price.

A different system for fixing producer prices for staple foods, namely a parity price system based on rice, has operated in Japan since 1946. The intention was to stabilize the income of producers at the average level of 1934-36, when price relationships of farm products to farm requisites and household goods were considered satisfactory. As a result of this system, areas planted with staples other than rice improved considerably and controls on these were removed. To encourage rice production further, the parity system was re-established on a more favourable base, and price bonuses have been recently paid in addition, thus throwing a considerable burden on the national budget.

In the main rice surplus countries, Burma and Thailand, the rice policy has pursued the dual objective of stabilizing producer prices, in order to check inflation, and of providing government revenue from export profits. In both countries, a minimum price for paddy was fixed —at a higher level in Thailand than in Burma—and these prices have not been changed since 1949. In Thailand, the price is not enforced, although the actual prices fluctuate round it. In Burma, as a measure of enforcement, millers offering export rice to the State Agricultural Marketing Board must produce a certificate proving that they have paid at least the minimum price to producers. The guaranteed minimum in Burma is thus largely an over-all fixed price, but deliveries are not compulsory.

Three tables have been prepared in order to facilitate the appraisal of the producer price policies of governments in relation to rice in the years since the war. There appears to be no clear evidence of a close relation between paddy price and the development of rice acreage or output. For a number of reasons, such a relation could hardly be expected. Subsistence farmers on small holdings have very limited opportunities for putting more land under paddy. The possibility for increasing their yields often depends upon supplies of additional irrigation water, fertilizers and pesticides, which they cannot obtain. Moreover, the incentive value of a producer price may be greatly modified by economic and social factors such

[106] The use of reserves of basic foods is discussed above in section III, page 46.

as the relative prices of other products competing for land or labour, especially of cash crops (jute, sugar-cane, rubber), inadequate marketing facilities and restrictive land tenure conditions. On the other hand, in the absence of support or incentive prices to producers, production might not have risen to the levels actually achieved.

Problems of support and incentive prices for producers

The main problems relate to the determination of the price level, the administrative requirements, the cost of consumer subsidies and institutional handicaps.

Determining the price. A fixed price gives a different level of profit on different farms. It may be an incentive to one farmer and a disincentive to another. There is no set answer to this problem. A fixed price may be based on the estimated cost of production (*a*) on the "average" or modal farm, (*b*) on the more efficient farms, (*c*) on the marginal farms, (*d*) on an imaginary standard farm with defined levels of efficiency as regards size, yields and labour output. The price may be set so as to maintain defined parity ratios between prices of farm products and of goods purchased by farmers. It may be designed to provide farmers as a group with a level of over-all income comparable with that in other occupations. Or it may be fixed on an arbitrary trial-and-error basis and varied in the light of a careful study of the effects produced. All these methods have been used at times. A common handicap in applying them in countries of Asia and the Far East is the prevailing lack of adequate statistical data about farm costs, prices and incomes and other business aspects of farm management.[107]

[107] Japan is, to a large degree, an exception.

Table 10.

Indexes of Paddy Prices and of the General Price Level

Country and item	*1948*	*1949*	*1950*	*1951*	*1952*	*1953*	*1954*	*1955*	*1956*
Burma:									
Farm price, official	100	100	100	100	100	100	100	100	100
Wholesale price, free	100	112	107	109	111	112	107		
General retail price index[a]	100	123	115	134	114	110	111	106	...
Ceylon:									
Farm price, guaranteed minimum	100	100	100	113	150	150	150	150	
Cost of living index[b]	100	99	105	109	108	109	109	108	108
China (Taiwan):									
Farm price, official[c]		100	183	291	383	548	635	635	678
Farm price, free[d]		100	203	207	345	539	466	487	537
General wholesale price index[e]		100	406	673	829	901	923	1,053	1,187
India:									
Procurement price (Orissa)	100	98	98	98	100	100	...	...	
Wholesale price, free (Orissa)	100	92	107	134	131	129	139	139	
General wholesale price index[f]	100	104	109	120	105	107	105	97	
Indonesia:									
Farm price, free		100	115	258	267	241	243		
General wholesale price index[g]		100	206	285	270	287	314		
Japan:									
Farm price, official		100	135	158	183	226	212	217	
Farm price, free		100	69	71	78	90	96	88	
Rural price index[h]		100	101	123	130	133	136	134	
Korea, southern:									
Farm price, official		100	607	2,286	7,321	12,071	19,286	25,500	38,643
Wholesale price, free		100	272	1,345	4,867	5,065	4,113	9,885	15,515
General wholesale price index[i]		100	...	985	2,132	2,671	3,424	6,201	8,359
Malaya:									
Farm price, guaranteed minimum		100	100	100	100	114	79	79	93
Cost of living index[j]		100	111	139	141	137	129	125	
Philippines:									
Farm price, official		100	100	100	90	90	85	85	85
Farm price, free		100	75	91	90	65	66	73	
General wholesale price index		100	97	109	100	99	94	91	
Thailand:									
Wholesale price, free	100	97	95	103	110	98	87	115	
General wholesale price index	100	94	96	104	109	102	100	117	

[a] General retail price index: Official series converted from 1939 base, original base being 1938-1940.

[b] Cost of living index of Colombo working class, original base being November 1942.

[c] Official purchasing price of Ponlai paddy; July-Dec. 1949 = 100.

[d] Farm price of Ponlai paddy; July-Dec. 1949 = 100.

[e] Original base, Jan.-June 1937 = 100.

[f] Economic Adviser's Series, original base being year ended August 1939.

[g] Unweighted index number of wholesale prices of 44 imported items in Djakarta, original base being 1938.

[h] Rural price index paid by farmers, average both of agricultural production goods and of family living necessities.

[i] Index numbers of wholesale prices in Seoul (but in Pusan from 1951 to 1953), originally 1947 = 100.

[j] Labourers' cost of living index, originally 1948 = 100.

Table 11.

Purchasing Power of Paddy Prices

Country and item	*1948*	*1949*	*1950*	*1951*	*1952*	*1953*	*1954*	*1955*
Burma:								
Farm price, official	100	79	92	93	103	105	116	106
Wholesale price, free	100	89	98	101	114	118	124	
Ceylon:								
Farm price, guaranteed minimum	100	101	95	104	139	137	138	139
China (Taiwan):								
Farm price, official				100	108	141	160	143
Farm price, free				100	136	195	165	151
India:								
Procurement price (Orissa)	100	94	90	82	95	94		
Wholesale price, free (Orissa)	100	89	98	112	124	120	132	143
Indonesia:								
Farm price, free		100	56	90	99	84	77	
Japan:								
Farm price, official		100	134	129	141	170	156	163
Farm price, free		100	69	57	60	68	70	66
Korea, southern:								
Farm price, official		100	—	242	343	452	563	411
Wholesale price, free		100	—	137	228	190	120	159
Malaya:								
Farm price, guaranteed minimum		100	90	72	71	84	61	63
Philippines:								
Farm price, official		100	103	92	90	91	91	73
Farm price, free		100	77	83	90	66	91	80
Thailand:								
Wholesale price, free	100	103	99	99	101	96	86	98

Note: Computed from table 10; price index deflated by the general price index indicated for each country.

Table 12.

Trends in Area and Production of Paddy

Country	*Area (thousands of hectares)*		*Production (thousands of tons)*		*Area (Indexes, 1948-1950=100)*					*Production (Indexes, 1948-1950=100)*				
	1948-1950	*1955*	*1948-1950*	*1955*	*1951*	*1952*	*1953*	*1954*	*1955*	*1951*	*1952*	*1953*	*1954*	*1955*
Burma	3,656	3,968	5,038	5,868	104	109	111	108	109	109	116	112	115	117
Cambodia	1,058	930	1,260	1,100	116	110	114	115	88	119	117	119	68	87
Ceylon	392	442	...	741	115	102	115	127	113	100[a]	89[b]	104[b]	119[b]	134[b]
China (Taiwan)	745	751	1,536	2,009	105	106	104	104	101	133	127	133	137	131
India	30,221	30,858	33,539	38,820	99	99	103	102	102	94	102	125	112	116
Indonesia	5,699	6,551	9,025	11,117	113	107	113	116	115	102	110	122	130	123
Japan	2,968	3,079	11,995	14,818	101	101	101	102	104	94	103	86	95	124
Korea, southern	1,055	1,089	3,061	3,042	87	111	101	101	103	84	94	115	96	99
Laos	850	600	565	510	90	94	...	59	71	89	89	...	71	90
Malaya	353	340	637	671	92	95	94	99	96	86	112	102	103	105
Pakistan	8,865	9,555	12,580	12,813	103	105	112	108	108	94	99	111	102	102
Philippines	2,223	2,709	2,620	3,237	111	111	131	119	122	108	120	122	122	124
Thailand	5,063	5,399	5,767	7,712	113	101	117	89	107	108	98	122	84	114
Viet-Nam, southern	1,650	...	2,210	...	113	117	113	...	...	116	119	111	...	...
Total	64,798	66,271[d]	90,833[e]	102,458[d]	102	103	107[e]	101[d]	102[d]	100	105	116[e]	105[d]	113[d]

Source: Food and Agriculture Organization of the United Nations, *Monthly Bulletin of Agricultural Economics and Statistics*, and *Yearbook of Food and Agricultural Statistics* (Rome).

[a] Production of paddy for 1951:554,000 tons.
[b] Base year, 1951.
[c] Not including Laos.
[d] Not including southern Viet-Nam.
[e] Not including Ceylon.

Administering a guaranteed price. In many countries of this region, the effective implementation of price policies entailing compulsory or even voluntary deliveries of produce to a government agency is difficult because of deficiencies in the basic services of transportation, communications, storage, marketing, financing and subsidiary industries. The agency may have to operate some of these services for itself, thereby adding to its size, complexity and costs and increasing the problems of management.

Financing consumer subsidies. Guaranteed prices high enough to give an effective incentive to producers are likely to necessitate subsidies to consumers. These subsidies may become a heavy burden on the national budget, and, once established, they are difficult to reduce or remove because of political as well as economic factors.

Institutional handicaps. Some of these, such as restrictive land tenure conditions and inadequate market facilities, have already been mentioned and are discussed at greater length below. Because of these and similar factors, it is doubtful to what extent price incentives will really be felt by the cultivator in some countries and to what extent he will be in a position to respond. The problems inherent in policies of support and incentive prices to producers have prompted governments to examine less expensive and more easily operated economic measures for encouraging the cultivators to increase production. In this connexion, the advantages of a more diversified approach, of the type being developed in India and Pakistan, might be of interest. Such an approach might provide for:

(*a*) Direct subsidies to the production process at key points, e.g. use of irrigation water, application of fertilizers, use of insecticides;

(*b*) Assured minimum prices set relatively low in the range of normal fluctuations but sufficiently high to ensure a degree of market protection, and implemented principally by means of buffer stocks in the case of storable products. If considered desirable, the stocks could be large enough to constitute a reserve for use in a sudden, severe shortage.

Direct Subsidies to Producers and Related Incentives

Experience in ECAFE countries

The countries of the region have tried to stimulate agricultural production by the provision not only of price incentives but also of subsidies or other monetary incentives designed to (*i*) extend cultivation and (*ii*) step up per hectare yields. In the former case, an acreage subsidy may be given in order to increase the area sown to a particular crop, usually by bringing new lands under cultivation, though occasionally diversion from other crops might also be envisaged. Thus, in Burma, a subsidy was given for some time of 10 kyat per acre for paddy land and 15 kyat per acre for groundnut land newly brought under cultivation. In India, soon after the outbreak of the Second World War, a subsidy of Rs 2 per acre was given for diverting lands from short staple cotton to food crops.[108]

Subsidies for stepping up per hectare yields, which are relatively more important, usually take the form of below-cost sales by the government agencies to cultivators of chemical fertilizers, improved planting material, plant protection equipment etc. Sometimes, however, cash payments may be made by the government to cover part of the costs of construction of minor irrigation works, wells, tanks or other permanent improvements such as ridges for rice cultivation.

By far the most common subsidy is the one in respect of chemical fertilizers but its extent varies greatly with the different countries. Thus, in Pakistan, it amounts to about 58 per cent of the cost, and the corresponding figures in respect of Malaya and Ceylon are 50 per cent and 33 per cent respectively. However, in certain other cases, e.g. China (Taiwan), India, Japan and southern Korea, the cultivator is supplied with chemical fertilizers in the form of crop production loans repayable after harvest in money or in kind, and practically no subsidy is involved. The incentive element lies in the fact that payment is postponed until after the harvest.

Another practice common in many countries is the supply of improved planting material to cultivators at subsidised rates. In the case of foodgrains and certain other crops, large-scale multiplication of improved planting material is undertaken by registered growers, who receive a price 5-20 per cent higher than the market price for the particular crop. The improved seed thus acquired by the authorities is sold to other cultivators at the market rate and the loss sustained by the government in covering an acre of land with improved seed may vary between 20 and 50 US cents.

In the case of tree crops such as rubber, the production of improved varieties for supply to cultivators is often undertaken at government centres, but replanted rubber takes several years to mature and consequently inflicts a loss on the cultivator of the income from replaced trees. It also delays the receipt of the increased income from newly planted trees. The replanting subsidy offered to small cultivators of rubber is therefore substantial, amounting to Rs 1,000 (US$210) per acre and M$600 (US$196) per acre in Ceylon[109] and Malaya respectively. Other seedlings distributed are those of coco-nut palms (Ceylon and Burma), fruit trees (Malaya) and mulberry trees (southern Korea).

Subsidies are also used in many countries of the region (e.g. Indonesia, southern Korea, Pakistan) to popularize the use of pesticides and insecticides. The subsidy may take the form of free or low-cost distribution of the materials, or of renting or selling below cost the spraying and dusting equipment. As in the case of fertilizers, the plan is usually to withdraw the subsidies gradually once the value of using the materials has been established.

The mechanization of farm operations may be promoted by making tractors and implements available at subsidized rentals or purchasing prices, as is done in Burma, Ceylon, India, Malaya and Pakistan, especially in areas or seasons of draught cattle shortage. In Malaya, the Department of Agriculture set up several tractor stations which, once the benefits of mechanical

[108] In Pakistan, the feasibility of offering remission in land revenue on new areas brought under cultivation is reported to have been under consideration.

[109] If the holding is below 10 acres.

equipment were realized by the farmers, were handed over to the Rural and Industrial Development Authority for operation on a commercial basis.

As mentioned earlier, subsidies may also take the form of cash payments to individual cultivators for undertaking certain types of land improvement works. Sometimes, the full cost in respect of an item of land improvement (e.g. well construction) is advanced to the cultivator and only a part is recovered in instalments, the rest being treated as subsidy. A variant of this technique is the grant of cash, or the supply of material at below-cost rates, to village organizations for works (storage construction, paddy-milling machines, irrigation, feeder roads, etc.) that can benefit whole communities, particularly in community project areas where part of the cost is met in the form of labour by the community concerned.

General considerations

Some of the considerations influencing the grant of subsidies in the countries of the region are as follows:

(*i*) If the expected increment from the application of certain production materials (say, chemical fertilizer or equipment) is unattractive to the cultivator at current prices of farm products, the production requisites may be sold to the cultivator at less than the cost price. Thus, government policy may favour increases in output, while avoiding significant increases in farm prices. In such cases, production requisites may be subsidized with a view to making them attractive to the farmers. However, while, in some respects, subsidies constitute an alternative to price incentives, their effectiveness can be impaired by unduly low or uneconomic prices.

(*ii*) If the use of new planting material, e.g. tree crops, leads to loss or delay in the receipt of income to the cultivator over a considerable period of time, subsidies may be given to compensate for it.

(*iii*) If the use of some equipment or technique (construction of a well, construction of houses in newly settled areas, etc.) entails an outlay well beyond the existing resources of the cultivator, subsidies may be given to make its use possible.

(*iv*) If some new technique or production requisite, which is normally profitable, has to be introduced quickly, or if a rapid expansion in acreage is desired, some special inducement in the form of subsidies or loans may be offered. In other words, subsidies or loans may be used as an aid to extension work.

An important initial problem in regard to the grant of subsidies is that of determining the most effective level of subsidy, while at the same time keeping the relevant costs within reasonable limits. Rough calculations of the profitability of using different production requisites (e.g. fertilizers, equipment) might be made in some cases[110] but the determination of the levels of subsidies must be mainly a matter of judgment. Often, the subsidies are fixed high initially in order to be attractive to the cultivator and make possible a reduction in the subsidy as the practice proves its worth to the cultivator. Resistance soon develops, however, to a reduction in the rates of subsidies. If the rate remains high, the amount, say, of fertilizer that can be distributed under subsidy will be limited by the extent to which government expenditure on subsidies can be incurred. One recent instance of the successful withdrawal of subsidies occurred in India, where subsidies in respect of ammonium sulphate have been virtually abolished. Nevertheless, owing partly to successful extension work and partly to the provision of supplies of ammonium sulphate as a crop production loan, there has been a remarkable expansion in its use. The advantage of using crop production loans in preference to subsidies is that the only government costs are in respect of administration and interest and that net investment by the cultivators themselves is encouraged. However, the extent and the circumstances in which subsidies can be replaced by loans have to be decided case by case.

Equally important are the administrative problems, which may lead to the abandonment of a particular method of subsidization.[111] It is essential to work out appropriate procedures to ensure timely and fair distribution of subsidies or loans, to ensure that the benefit is received by the cultivator himself and that effective use is made of the assistance, particularly when the aid is given in cash or when subsidized production requisites are supplied with a view to stepping up the production of some specific crops. To take one instance, subsidized chemical fertilizers may be supplied for use on food crops but, in the absence of adequate administrative checks, the cultivator may either use these on some commercial crops or sell them to other cultivators specializing in such crops. Procedures and administrative arrangements have to be worked out, too, for the recovery of the loans. The question has to be studied whether the disbursement and recovery of crop production loans should be entrusted to agriculture, extension, or land revenue departments. The association of extension workers with the disbursement of grants or loans might be valuable, but their use in the recovery of the loans might have repercussions on the popularity of extension work itself.[112] Another problem is whether loans or grants for certain types of facilities or improvements (construction of storage, minor irrigation works, paddy-milling or other machinery) should be given to village or co-operative organizations rather than to individuals.[113] The solutions to these and similar problems have to be worked out by each country in the light of its own conditions, but it is hoped that an exchange of experience will prove helpful.

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110 Studies of this type are hampered by lack of reliable statistical data regarding the responses of production to the application of various agricultural requisites, etc.

111 It was mainly because of administrative difficulties that acreage subsidies were discontinued in Burma.

112 In some States of India, disbursement is made through agriculture departments but recovery of loans is effected by the revenue departments, which can, if necessary, adopt the procedure of summary recovery applicable to arrears of land revenue.

113 In the Philippines, the Agricultural Credit and Co-operative Financing Administration gives loans mainly to Farmers' Co-operative Marketing Associations for the construction of grain stores, paddy-milling machines and so on.

Institutional Factors

Institutional changes usually take considerable time to put into effect, and in some cases (in land tenure for instance) may provoke strong opposition with unpredictable effects on production. Consequently, countries eager for immediate increases in agricultural production may be obliged, in the short and medium term, to ply on measures that can be implemented within the existing framework. Institutional friction or shortcomings, too, virtually rule out many "direct" programmes for agricultural development. In such cases, a major element in medium-term plans may have to be the modification of institutional structures. In Asia and the Far East, this need is particularly acute in regard to extension, mraketing and credit facilities. In practice, most countries of the region will probably combine the direct and the institutional approaches.

Although it would be desirable for planning purposes to have estimates of the quantitative effects on production of modifications in agricultural institutions, it is difficult to isolate the various causal factors. In consequence, it is probably impossible for a particular country to forecast what contribution any given institutional change may make towards the achievement of quantitative production goals in a given period. Case studies analysing the effects on production of special reforms, e.g. increased credit supply, land reform, etc., would be of great interest.

Land tenure

Unsatisfactory forms or conditions of land tenure may constitute a major impediment to development by creating or perpetuating social unrest, as well as by hampering the modernization of agriculture. Out-of-date cropping systems, for instance, may be propped up by tenancy laws or customs. The application of modern methods may be impossible because farmers' incomes are depressed by exorbitant rents to an extent which leaves no margin for saving or investment. The tenant may lack the minimum security of tenure which would encourage him to invest savings in improvements or would encourage a creditor to grant the cultivator a loan. The tenant's bargaining position may be further weakened by the host of intermediaries between the cultivator and the legal owner of the soil. Under unsatisfactory conditions of land tenure, it is doubtful whether subsidies or efforts by extension services to encourage development will be fully effective because the tenant may receive only a small share of any increases in production due to his own efforts or investments, and so has little incentive to make them.

For all these reasons, post-war reform programmes in ECAFE countries have aimed largely at the abolition of obsolete forms of tenancy. Measures for the transfer of ownership to cultivators have been adopted by Burma, China (Taiwan and mainland), India, Japan, Pakistan, the Philippines and southern Viet-Nam.[114] Thus, under the Japanese Agrarian Reform Legislation, tenanted land has decreased to about 9 per cent of the total arable area. In India, individual states have enacted laws and regulations for the abolition of *zamindari* and related types of tenure, with the aim of eliminating all intermediaries between state and cultivator, and have conferred rights of purchase on tenants, thus establishing peasant proprietorship under which subletting would be prohibited.

In principle, the security of tenure needed as an incentive for development does not necessitate the abolition of tenancy. That security may also be obtained by the improvement of existing owner-tenant relationships. In China (Taiwan), India, Japan, southern Korea, Pakistan, the Philippines and Viet-Nam, new legislation has been enacted covering the establishment of sufficiently long-lease periods, rights to compensation for improvements, and the restriction of grounds for eviction. Minimum lease periods have been established in many Indian states, and the trend is to give the tenant long-term, and even permanent and inheritable, occupation rights. In Burma, tenancy is only a provisional status on the way to ownership assured by law.

The problem of rent control has received special attention in all the countries mentioned above. China (Taiwan) has established 37.5 per cent of the standard yield as a general rent ceiling. The Philippines has attempted to establish a system of rent controls by introducing detailed accounting of the contributions of landlord and tenant.

However, the enforcement of legislation in areas of intense pressure on land remains the crucial problem of tenancy reform. Implementation is frequently difficult in view of the illiteracy, the weak economic position and the lack of organization of the tenants. In many cases, tenants do not make use of their rights because they lack information. They are afraid, too, of incurring the disfavour of the landlord, on whom they will be dependent in times of difficulty, and have little confidence in the support of the government authorities. In consequence, excessive rents may continue in spite of legal ceilings.

The most urgent tenancy problem in ECAFE countries is that of achieving workable protection for the tenant. The next step is to improve the tenant's farming technique.

The size and layout of holdings are of major importance for the attainment of higher standards of productivity. Uneconomically small or fragmented holdings may depress the farmer's income below subsistence levels and prevent him from using his time to the best advantage or from adopting modern means of production such as mechanization. Over-large holdings may equally impede progress, because the cultivator lacks the capital, desire or ability to intensify or diversify production.

The great land distribution programmes carried out in ECAFE countries have not, in general, affected the internal structure of the farm unit.[115] Thus, in India, the problem of uneconomic holdings is of vast propor-

[114] United Nations, *Progress in Land Reform, 1954* (sales number: 1954.II.B.3) and also *Progress in Land Reform, Second Report, 1956* (1956.II.B.3).

[115] FAO, *The State of Food and Agriculture, 1957*, (Rome, 1957), chapter IV.

tions, and legislation abolishing intermediaries has not widely affected the pattern of land distribution. Only two Indian states, Hyderabad and Himadal Pradesh, have introduced ceilings on existing holdings, varying with the quality of the soil and the system of cultivation. Surplus land thus obtained is available for redistribution to landless peasants or to those with extremely small holdings.

Operations for the consolidation of fragmented holdings have been carried out in Burma, China (Taiwan), India, Japan and Pakistan. Nevertheless, the prevention of future fragmentation through the reform of inheritance laws and customs remains a major difficulty in most cases. In Japan, the target for consolidation for the period of 1950-57 was set at approximately 30 per cent of the total area of farmland. No legal restrictions have been imposed upon inheritance, but one heir may be supplied with government credits to buy out other heirs in order to avoid partition.

In mainland China, the elimination of small-size holdings was achieved by collectivization. In other ECAFE countries, group farming societies on a voluntary basis have been formed to promote better farming on what were previously small holdings. Group farming may imply joint management of individual units, or joint management combined with the pooling of land under various systems of ownership. Thus, in the 200 co-operative farming societies of the Pakistani Punjab, members act co-operatively in respect of procurement of seed and other requirements, but each family cultivates the land itself. Four types of group farming exist in India, all of which differ as to the degree of collective use of land and other resources, but are voluntarily formed and strongly supported by government aid. The second five-year plan expects co-operative farming, though still in its initial stage in India, to make substantial contributions to the development of agriculture.[116]

Experience has shown that group farming can facilitate the modernization of production and the implementation of credit and marketing programmes but encounters difficulties owing to technical and family problems.

Availability of agricultural credit

Lack of availability of an adequate volume of credit to farmers on reasonable terms is one of the major obstacles to the expansion of agricultural production in most countries of the ECAFE region.

There is a crying need for credit for the mass of cultivators, particularly for those with extremely low incomes. It is difficult for them to make even the smallest savings to meet their short-term production requirements, let alone for medium- and long-term investment, however modest it may be, for such essential purposes as the purchase of livestock and small equipment or for the provision of drainage and irrigation facilities or of other small improvements of their holdings. Even subsidies would not be fully effective under these conditions, since, say, fertilizers, even at reduced prices, might still remain beyond the cultivator's means.

Credit is equally needed by cultivators settled on lands reclaimed or irrigated by the government, and also by the tenants who, under land reform programmes, are given the right to purchase the land they cultivate. Furthermore, medium- and long-term credit is required by relatively better-off farmers who are willing to undertake at their own expense costlier projects such as land reclamation and development, to acquire more expensive equipment such as pumps or farm machinery, or to shift (or replant) cash crops of longer maturity (e.g. rubber, coco-nut, tea). All these requirements arise even without any large-scale development planning and become more urgent if agricultural expansion is accelerated.

For most countries, reliable and official estimates of credit required by farmers for different purposes are lacking, but some idea of the credit required in India may be obtained from investigations carried out by the recent Rural Credit Survey. The requirements during 1951-52 for the purchase of land and livestock and for other capital expenditure were estimated at about Rs 1,200 per family for larger cultivators and about Rs 800 per family for small cultivators. The total annual requirements, according to an unofficial estimate, are of the order of Rs 13,000 million. For Pakistan, the aggregate need for short-term credit only is estimated by the State Bank to be about Rs 3,000 million. In Indonesia, a rough estimate for Java puts the farmers' credit requirements in every village at about Rp 100,000. While these figures may be subject to caution as regards accuracy and coverage and require reviewing in the light of farmers' current borrowings, they should be helpful in attempts to plan the supply of credit to agriculture.

Information is also very meagre on the magnitude of the credit at present available to cultivators except for that part of it which comes from organized institutions like banks and co-operative societies. The Indian Rural Credit Survey provides some information in this field. On the basis of 1951/52 data, it estimates that the total annual borrowings of the cultivator from all sources were "very broadly" of the order of Rs 7,500 million, which comes to only Rs 31 per head of agricultural population and Rs 56.50 per hectare of arable land equivalent. Only 25 per cent of the credit requirements of "upper strata cultivators" and 11 per cent of those of "lower strata cultivators" was actually met.

Not only is there an over-all shortage of credit for farmers but only a very insignificant share of it is supplied by credit institutions in all countries of the region except Japan and the Philippines.[117] The All-India Survey shows that, while less than 10 per cent of farmers' borrowings came from institutional sources including the government, co-operatives, commercial banks and others, more than 90 per cent was from relatives, landlords, and private and professional money-lenders and traders. The undesirable effects of farmers' dependence on private sources of borrowings, especially on money-lenders and traders, need no elaboration. This state of affairs undoubtedly reduces the farmers' productive efficiency and their willingness to make efforts to increase production.

[116] Planning Commission, *Second Five-Year Plan* (Delhi, 1956), pp. 201-205.

[117] FAO Report of the Centre on Agricultural Financing and Credit for Asia and the Far East, Lahore, October 1956 (FAO Report No. 631, February 1957), p.162.

An attempt should be made, therefore, not only to expand the over-all supply of credit at reasonable rates of interest in line with the diverse needs of farmers, but also (*a*) to institutionalize as much of the credit from the traditional sources as possible, in order to make it more useful and less burdensome to farmers; (*b*) to provide non-credit facilities, e.g. for marketing their products and purchasing essential farm equipment; and (*c*) to strengthen the general economic position of farmers, and especially of the small farmers. This calls for an integrated approach, as opposed to the narrower method of tackling credit problems more or less in isolation, a policy which has been followed in the past by most countries with relatively little success.

By adopting the former approach, Japan has made considerable progress in the field of agricultural credit. In 1955, that country reported by far the largest supply of institutional agricultural credit per hectare of agricultural land (arable land equivalent) among countries of Asia and the Far East. Japan is well provided with institutions for the supply of agricultural credit. There are two important institutions at the national level, namely, the Agriculture, Forestry and Fisheries Finance Corporation, and the Central Bank of Co-operatives. There are also a large number of co-operative associations dealing effectively with credit at the provincial and village level. But, even more important, the supply of credit is linked to the marketing of the farmers' products and to the purchase of essential requisites, chiefly through the operation of the "agricultural bill" system. Large-scale financial support has also been afforded to the central credit institutions and the co-operatives by the Government and the Bank of Japan. Measures of agricultural price support and the utilization of co-operatives as government agents for buying cereals have further strengthened the co-operatives' position.

The idea of such an integrated approach to the farmers' credit, marketing and purchasing problems on the one hand, and of considerable government support and participation on the other, appears to have gained substantial ground in recent years.[118]

Adequacy of marketing facilities

It will of course be difficult to implement programmes for increased production if cultivators have difficulty in finding markets. Furthermore, the incentive effects on cultivators of higher or guaranteed prices, or of subsidies on production materials, will be reduced if a large share of the benefits of any increased production is absorbed by high marketing costs. Likewise, the incentive is ineffective if cultivators are unaware of changed price levels because of poor market intelligence systems. The relatively large spread between farm and market prices because of inadequate transportation and storage facilities, local buying monopolies, poor methods of handling and processing, and lack of uniform grading and weights and measures will also reduce the incentive effect on cultivators of any expansion in demand.

Certain Far Eastern countries have long been operating marketing schemes for the purpose of effecting a more orderly transfer of produce from the farmer to the ultimate consumer. For example, the sugar industry of the Philippines functions under a quota system. In Burma, rice purchases and exports, and in Japan the purchase of rice, are handled by government monopoly organizations.

To eliminate malpractices and encourage the use of desirable standards of weights and measures, the Governments of India and Pakistan have been operating a system of "regulated markets". Trade in areas designated as regulated markets must observe certain rules, conform to standards of weights and measures, limit distributive margins, carry out open auctions and so on. The Government, for its part, provides storage and other marketing facilities. To simplify the great diversity of weights and measures, legislation has been passed making the metric system standard for all India. In China (Taiwan), all rice dealers are licensed and are required to report the volume of rice handled in order to enable the Government to keep track of movements within the country. The establishment of futures markets in Japan and India has helped to make marketing more stable.

To provide better storage in the countryside, the Philippine Government has initiated the construction of numerous storage and processing plants as a part of its credit extension programme. Indirect assistance is also being given in many countries of the region in the form of agricultural credit measures and the extension and improvement of transport and communication facilities.

Co-operative marketing organizations, too, appear to offer a promising way of raising the bargaining power and efficiency of cultivators in marketing their produce. Since peasants are frequently in debt to the middlemen who also provide markets for their crops, co-operative organizations which combine short-term credit and marketing services are generally most effective.

Agricultural taxation

In the formulation of programmes for agricultural expansion, some attention should be given to the system of agricultural taxation.[119] The determination of the appropriate structure and incidence of agricultural taxation hinges on a number of factors, such as (*a*) the contribution made by agriculture to total national income, (*b*) the state of agriculture as an enterprise, (*c*) the institutional background, including the land tenure system, (*d*) the general economic and fiscal policy of governments, including the nature and size of public expenditure and (*e*) the need for providing incentives. While (*a*) and (*d*) are of particular importance in the determination of the scale and impact of taxes on agriculture, (*b*), (*c*) and (*e*) are more relevant to the determination of the type and form of tax.

[118] Among the more important examples may be cited the organization in the Philippines of Agricultural Credit and Co-operative Financing Administration (ACCFA) at the national level, and of the Farmers Co-operative Marketing Associations (FaCoMas) at the village level; the decision in India to enlarge the size of the co-operatives at the village level in order to deal with other essential activities besides credit, and to establish extensive warehousing facilities; and the organization of the Co-operative Agricultural Production and Sale Societies in Ceylon.

[119] United Nations, "Note on Taxation and Development of Agriculture in Under-Developed Countries, with Special Reference to Asia and the Far East", (E/CN.11/DPWP.3/L.8; 27 August 1957; mimeographed).

In most countries of the region, agriculture, which supports 60 to 80 per cent of the population and contributes 40 to 60 per cent of the national income,[120] has to make a sizable contribution to development programmes despite its low per capita income. What is the appropriate size of this contribution? Should agriculture be taxed proportionately to its share in the national income, or less or more? These questions assume special importance when the countries are seeking not only to expand their agriculture, but also to industrialize and diversify their economies.

For a majority of countries, there is at present hardly any quantitative information on the present contribution of agriculture to the national exchequer. However, some recent studies made by the United Nations and FAO, as well as by some of the countries, indicate that, while the smaller farmers may sometimes have been taxed rather heavily (mainly through indirect taxes), the larger owners and tenants have got off lightly.

One of the reasons is no doubt the under-taxation of land. The land tax, which until recently has been the major tax in a number of countries, has proved inflexible and non-progressive and has failed to keep pace with increases in production and prices. The only exceptions are in those countries where this tax is collected in kind, as for example, in China (Taiwan and mainland). Although some states in India and Pakistan have introduced an income tax in the agricultural sector as a complement to the land tax, its yield has been too small to cause any significant change in land taxation. One of the major fields of tax reform would therefore be to introduce flexibility and progressivity in the taxation of land and its income.

The important points for consideration in devising tax reform measures are not only the yield and equity of a tax but also its effects on incentives and stability. In any system of planned development, the incentive effects of a tax should be evaluated against the increased earning power and real income which may be derived from government expenditure, not only by way of direct grants, price supports and subsidies to agriculture, but also from various essential economic and social overheads. Even so, it may be desirable to provide some direct incentives to promote agricultural expansion through agricultural taxation. For example, investments in irrigation, soil conservation and land improvement generally can be exempted from income tax. The use of improved seed or of fertilizers may also be given tax relief. Alternatively, these could be supplied free of charge or at a concession rate by governments, as is done in Pakistan and the Philippines. Again, newly reclaimed land or fallow land brought under cultivation may be exempted from land taxes and other charges for a number of years. There may, however, be higher tax rates on unutilized or unimproved land, or a land tax or agricultural income tax may be levied in terms of potential rather than actual yield.

The state of agriculture as an enterprise is important in determining the type of taxation. With the prevalence of a subsistence or near-subsistence economy in most countries (often accentuated by land tenure reform), a farm output tax may be easier to administer than either an agricultural income tax alone or a combination of agricultural income tax and property tax. The output could be taxed on the farm as in mainland China, or in the form of "land revenue" as in India and Pakistan. Any disposable surplus could be taxed at the market through excises, market taxes and export levies, as well as through state trading boards or marketing organizations. Where, however, it is possible to administer an agricultural income tax, this may, in order to plug up the possible gaps and try to stop income tax evasion, be combined with other forms of taxes, for instance property, inheritance, capital gains, betterment, land value increment taxes, or, as already stated, on unutilized and unimproved land.

A combination of these taxes and concessions might bring in much-needed revenue from agriculture and yet afford an incentive for farmers to expand their production.

Dissemination of technical knowledge and the role of government services to cultivators

It is through government services to the agricultural industry that the plans for agricultural development are implemented. Three significant factors should be taken into account in this connexion—the long-term capacity of the country to support government activity on behalf of agriculture, the supply of the necessary technical manpower, and the receptivity of agrarian society to modifications suggested.

The costs of administering government services are high and tend to increase. Institutional reform is a relatively slow process, so that virtually all projects become long-term ones. Once commenced, they are difficult to terminate. The administrative costs of policy measures must therefore be carefully reviewed before priorities are assigned, and total costs should be appraised in relation to the long-term share of national revenue which is expected to be devoted to agriculture.

Ministries of agriculture generally require a higher proportion of technical staff than most other government departments. The rate at which technically trained officers become available largely determines the rate at which plans adapted to field conditions can be made and implemented. Attention should be given both to encouraging professional training and status for agricultural officers and to planning the supply of technical workers in the various disciplines in the light of the programmes projected.

The existence of facilities for agricultural credit and marketing and for those forms of government assistance which it is open to the farmer to accept does not in itself ensure agricultural progress. For one thing, the adoption by cultivators of improvements in farming practices, pest and disease control measures, planting materials, use of fertilizer, and a host of other means for increasing production depends on their knowledge of these facilities. The cultivators must be educated in the advantages of using them. In many cases, even in developed countries, it is through the agricultural extension agents that farmers first become aware of the

[120] *Economic Bulletin for Asia and the Far East*, vol.VII, No.3 (November 1956), p.50.

advantages offered to them, as individuals, by agricultural legislation and technical improvements or innovations. It is important, therefore, that extension services be created at an early stage in agricultural development. Otherwise, there will simply be no means of bringing about changes at the farm level. Promotional or educational activities aimed at changing farm practices which are undertaken independently of an extension service are not likely to achieve results.

Economic and technical research in agriculture plays an essential role in agricultural expansion by selecting those plant varieties, types of livestock, equipment and so on best adapted to local conditions. Technical advances need to be closely co-ordinated with the economic possibilities of applying them. A research organization is also required in order to provide the basic technical information for the extension service—with which it must also collaborate. Since research requires highly trained technical personnel, care is necessary in selecting the lines of research and experimentation likely to make the greatest contribution to the national development programme.

For most countries of the ECAFE region, broader education is needed both at the professional level to provide technicians, and at the farm level to increase the standard of literacy so as to facilitate the adoption of more complicated techniques. The rate at which technical manpower becomes available seems, in many underdeveloped areas, to determine the rate of agricultural development planning and implementation. Concerted efforts to build up local educational facilities and to send students abroad are both desirable. In many countries, however, expert professional agriculturalists have a relatively low social and financial status. In some countries, young people are simply not interested in such a career. Until this situation is remedied, supplies of technical manpower will remain small and plans for agricultural development will lag.

One of the most successful approaches to the promotion of balanced socio-economic progress is that of community development. The integration of all major technical and educational services required to improve human welfare at the village level entails many difficulties in securing the necessary institutional co-ordination, but the technique has met with success in a number of countries. It may achieve striking results in changing the attitudes of rural people towards their own ability to help themselves and each other. A carefully planned community development programme is probably the quickest and most effective means at the farm level of attaining a well-balanced expansion of production.

Role of nutrition education in rural areas

Nutrition education can stimulate not only effective demand for protective foods[121] but also the production of those foods for home consumption in rural areas. This offers one of the most promising opportunities for achieving an improvement in the qualities of the average diets in the ECAFE region where most people grow their own food.

Experience in this region and elsewhere has already shown that the education of rural families in nutrition and home economics can be effectively integrated into agricultural extension and other educational programmes. These are being rapidly developed in many countries of the region as essential parts of various inspiring movements known as community development, fundamental education, etc. The farmers, as well as their womenfolk, who play a very important role on the farms, can be made to realize the value of protective foods to their health and well-being and of the best methods of producing, processing and preparing them. The particular effectiveness of promoting school gardens in conjunction with school feeding programmes in achieving this objective has already been shown, not only by efforts in the region, e.g. in Ceylon, but also by programmes elsewhere, e.g. in Central America. As the boys and girls of today are the farmers and housewives of tomorrow, there can surely be no better basis on which to build a richer and brighter future for the hundreds of millions of men and women in this area.

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[121] See above, section III.

ASIAN ECONOMIC STATISTICS

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UNITS AND SYMBOLS EMPLOYED

Unless otherwise stated "tons" relate to metric tons, and "dollars" relate to United States dollars.

The following symbols have been used throughout:

* = average of six to eleven months.
‡ = 12 months beginning April of the year stated.
† = 12 months ending September of the year stated.
ø = 12 months ending June of the year stated.
I, II, III, and IV for quarters of years.

Mn = million.
... = not available.
— = nil or negligible.
r = revised figures from this issue.
Figures in italics are provisional.

Substantial breaks in the homogeneity of a series are indicated either by a horizontal line across the column or by vertical double lines in a row of figures.

SOURCES

To ensure comparability, data compiled or published by the United Nations Statistical Office have been incorporated wherever feasible; material supplied by governments, publications of governments, of the United Nations specialized agencies and of international commodity study groups have been used as additional sources.

REGIONAL STATISTICS

1. REGIONAL STATISTICAL SERIES

Annual, quarterly and monthly figures

	1950	1951	1952	1953	1954	1955	1956	1956 II	1956 III	1956 IV	1957 I	1957 Apr	1957 May
AGRICULTURAL PRODUCTION[a]													
Index of agricultural production (excluding mainland China) (*1934-38=100*)													
All commodities	...	...	...	114	117	121	*124*	...	...	...	...	...	...
Food	...	...	...	116	118	121	*124*	...	...	...	...	...	...
Cereals	...	...	...	115	113	117	*122*	...	...	...	...	...	...
Cereals (*Mn tons*)	101.0	101.7	107.6	122.0	120.6	123.1	*126.7*	...	...	...	...	...	...
Rice (milled)	65.2	65.8	69.6	77.3	72.2	78.2	*81.7*	...	...	...	...	...	...
Wheat	13.6	13.8	12.6	13.5	15.6	15.9	*15.5*	...	...	...	...	...	...
Maize	4.9	5.1	6.1	6.7	7.5	6.4	*7.0*	...	...	...	...	...	...
Millet and sorghums	12.6	12.9	15.1	18.4	18.2	15.5	*15.4*	...	...	...	...	...	...
Starchy root crops (*Mn tons*)	25.5	25.9	28.7	30.2	31.9	33.8	*33.2*	...	...	...	...	...	...
Potatoes	5.2	5.3	5.6	5.7	5.6	6.0	*5.8*	...	...	...	...	...	...
Sweet potatoes and Yams	12.3	11.2	13.4	12.8	13.3	15.2	*14.7*	...	...	...	...	...	...
Cassava	8.0	9.4	9.7	11.7	13.0	12.6	*12.7*	...	...	...	...	...	...
Oilseeds (*Mn tons*)													
Groundnuts (in shell)	4.1	3.9	3.6	4.2	5.0	4.7	*5.0*	...	...	...	...	...	...
Copra	2.0	2.5	2.3	2.2	2.4	2.4	*2.6*	...	...	...	...	...	...
Tea (*Mn tons*)	0.5	0.6	0.6	0.6	0.6	0.6	*0.6*	0.2	0.2	0.1	0.1	—	0.1
Tobacco (*Mn tons*)	0.6	0.6	0.6	0.6	0.8	0.8	*0.8*	...	...	...	...	...	...
Fibres (*Mn tons*)													
Cotton (lint)	0.9	1.0	1.0	1.1	1.3	1.2	*1.3*	...	...	...	...	...	...
Jute	1.7	2.0	2.1	1.2	1.4	1.8	*1.8*	...	...	...	...	...	...
Natural rubber[a] (*Mn tons*)	1.8	1.8	1.7	1.6	1.7	1.8	1.8	0.4	0.5	0.5	0.4	0.1	0.1
INDUSTRIAL PRODUCTION													
Provisional index of industrial production (*1953=100*)[b]	65	83	89	100	107	116	136	143	139	140	*142*	...	...
Mining	82	90	95	100	100	104	111	110	111	115	*114*	...	...
Manufacturing	63	82	88	100	108	118	139	147	142	142	145	*153*	*159*
Coal (*Mn tons*)	75.2	82.1	85.2	88.3	84.9	86.6	92.8	22.0	22.7	24.8	24.9	8.8	8.9
Iron ore (*Mn tons*)	5.22	6.81	7.77	7.70	8.41	8.91	10.34	2.41	2.84	2.79	2.73	0.97	1.02
Tin in concentrates (*1000 tons*)	103.5	101.4	104.9	104.5	109.8	109.5	108.7	26.7	28.7	27.8	24.6	8.1	8.3
Petroleum, crude (*Mn tons*)	11.14	13.10	14.26	15.83	16.37	17.90	*19.27*	4.84	4.84	*4.98*	*4.97*	*1.77*	*1.85*
Salt (*1000 tons*)	4,310	4,641	4,860	4,955	4,562	5,038	*4,759*	2,457	906	*472*	*832*	*705*	*1,140*
Sugar (*1000 tons*)	2,515	2,812	3,647	3,973	3,783	4,664	4,837	...	...	...	...	...	...
Cotton yarn (*1000 tons*)	816	981	1,076	1,219	1,346	1,380	1,490	365	379	396	395	137	134
Cotton fabrics (*Mn metres*)	4,980	5,980	6,606	7,545	8,153	8,188	8,839	2,221	2,254	2,299	2,248	*800*	*787*
Jute manufactures (*1000 tons*)	854	896	992	942	1,013	1,145	1,268	340	312	294	297	102	102
Paper and paper board (*1000 tons*)	706	1,333	1,525	1,946	2,136	2,478	2,858	700	727	772	780	275	289
Vegetable oils (*1000 tons*)	740	785	839	879	969	1,084	1,150	286	295	289	*292*	*92*	*94*
Cement (*Mn tons*)	8.4	11.4	12.5	14.6	17.5	17.6	20.6	5.3	5.3	5.5	5.6	2.1	2.1
Steel (ingots & metal for castings) (*1000 tons*)	6,313	8,040	8,615	9,234	9,520	11,207	12,954	3,143	3,302	3,468	3,604	1,257	1,300
Tin metal (*1000 tons*)	70.7	67.8	64.7	64.9	74.5	74.5	76.9	20.1	18.7	19.4	19.3	7.1	5.7
Electricity (*1000 Mn kWh*)	53.4	57.5	62.4	67.7	73.3	78.8	*89.5*	22.7	*22.7*	*23.6*	...	...	...
TRANSPORT													
Railway traffic (*1000 Mn*)													
Passenger kilometres	148.2	147.7	152.8	157.5	163.5	170.9	182.0	47.9	45.4	44.9	46.8	15.5	17.4
Freight ton-kilometres	82.0	92.9	96.5	100.0	98.3	107.5	117.5	28.0	29.2	31.3	32.3	10.7	10.7
International sea-borne shipping (*Mn tons*)													
Freight loaded	22.2	25.8	29.6	34.9	36.7	40.2	42.2	10.5	10.5	11.0	10.6	*3.6*	*3.8*
Freight unloaded	32.4	46.5	50.5	62.0	64.5	70.2	83.0	19.9	21.0	23.4	22.6	*8.9*	*9.4*
EXTERNAL TRADE													
Total value (*Mn dollars*)													
Exports	6,746	9,737	7,656	6,900	7,244	8,325	8,824	2,110	2,147	2,377	2,359	...	...
Imports	5,983	9,487	9,367	8,549	8,307	8,765	10,438	2,586	2,610	2,801	3,070	...	...
Quantum index[c] (*1953=100*)													
Exports	93	100	100	100	109	123	*129*	122	130	*139*	...	...	...
Imports	75	96	98	100	105	109	*127*	128	129	*133*	...	...	...
Unit value index[c] (*in dollars, 1953=100*)													
Exports	103	140	111	100	98	100	99	97	97	99	100	...	...
Imports	91	117	114	100	94	95	99	97	98	*100*	102	...	...
Terms of trade[c] (*1953=100*)	113	120	98	100	104	105	100	101	99	99	97	...	...
Export of primary products[d]													
Quantum indexes (*1953=100*)													
General	92	101	98	100	101	108	109	102	105	116	118	...	...
Food	86	99	96	100	107	108	115	107	109	124	131	...	...
Agricultural materials	101	107	101	100	99	109	105	97	100	109	110	...	...
Mineral products	67	81	95	100	95	100	111	108	113	124	115	...	...

1. REGIONAL STATISTICAL SERIES *(Cont'd)*

Annual, quarterly and monthly figures

	1950	1951	1952	1953	1954	1955	1956	1956 II	1956 III	1956 IV	1957 I	1957 Apr	1957 May
Exports of primary products (Cont'd)													
Unit value index (*1953=100*)													
General	112	148	117	100	100	108	101	105	99	99	109	...	...
Food	90	94	100	100	105	95	90	89	89	94	93	...	...
Agricultural materials	129	190	131	100	97	120	110	119	106	103	124	...	...
Mineral products	83	105	109	100	93	94	101	98	101	102	107	...	...
Quantity of exports (*1000 tons*)													
Food													
Fish, fresh or simply preserved	97	121	145	153	164	180	173	33	42	42	53	*14*	*11*
Rice and rice products	2,748	3,410	2,945	2,654	2,987	3,294	3,244	867	681	891	1,035	*419*	*385*
Sugar	1,031	857	1,255	1,755	1,604	1,689	1,632	413	282	370	634	191	116
Tea	368	432	394	436	459	408	453	97	114	135	114	*24*	*26*
Spices	53	49	62	59	74	80	90	19	25	25	16	5	5
Agricultural materials													
Hides and skins, raw	49	44	22	24	24	22	20	5	4	7	7	5	6
Oilseeds, oil nuts & oil kernels	1,262	1,518	1,205	1,086	1,285	1,275	1,456	331	410	428	345	112	123
Rubber, natural	1,751	1,756	1,692	1,611	1,688	1,782	1,699	399	434	472	427	128	127
Wood and lumber	700	1,024	1,270	1,680	1,936	2,375	2,687	619	745	716	597	...	...
Cotton, raw	254	260	313	354	186	276	226	59	32	28	75	*17*	*21*
Jute, raw	942	1,078	841	982	892	981	858	133	122	195	322	34	18
Hemp, raw	111	149	127	132	122	135	148	43	36	34	43	*11*	*10*
Vegetable oils, not essential	457	425	495	404	499	602	515	123	130	129	93	26	30
Mineral products													
Iron ore	1,237	2,044	3,152	3,728	3,540	4,399	5,636	1,439	1,648	1,456	1,184	385	950
Tin ore and concentrates	44	42	46	45	45	44	45	10	12	13	*9*	*3*	...
Manganese ore	823	1,162	1,463	1,593	1,006	936	712	155	153	181	430	172	136
Coal	1,048	2,451	2,729	2,201	2,063	1,562	1,940	466	596	441	431	170	103
Crude petroleum	3,768	4,974	5,670	6,963	7,083	8,219	10,049	2,638	2,388	2,836	2,666	*964*	*909*
Direction to trade (*Mn dollars*)													
Exports to:—													
ECAFE countries	2,432	3,522	2,964	2,562	2,539	2,657	*2,958*	721	*716*	*805*	*821*	...	...
Western Europe (incl. U.K.)	1,690	2,713	1,863	1,759	1,789	2,110	*2,172*	482	*521*	*586*	*598*	...	...
U.K.	696	1,249	840	744	845	1,002	*1,002*	223	*252*	*251*	*262*	...	...
U.S.A.	1,392	1,641	1,390	1,238	1,172	1,518	*1,526*	370	*378*	*410*	*367*	...	...
Sterling area	2,574	4,006	2,851	2,339	2,691	2,934	*2,939*	684	*729*	*776*	*792*	...	...
Imports from:—													
ECAFE countries	2,217	3,364	3,100	2,794	2,679	3,056	*3,371*	856	*793*	*859*	*945*	...	...
Western Europe (incl. U.K.)	1,384	2,349	2,436	2,221	2,188	2,206	*2,572*	651	*673*	*624*	*736*	...	...
U.K.	720	1,029	1,073	930	902	951	*1,135*	282	*300*	*272*	*308*	...	...
U.S.A.	1,243	1,992	2,193	1,800	1,813	1,874	*2,391*	597	*606*	*689*	*777*	...	...
Sterling area	2,140	2,954	2,914	2,682	2,400	2,639	*3,071*	771	*764*	*785*	*864*	...	...
GOLD AND FOREIGN EXCHANGE ASSETS[e] *(end of period, Mn dollars)*	3,704	4,043	4,637	4,324	4,379	4,982[r]	4,702	4,934	4,806	4,702	4,445[r]	4,281	4,043

GENERAL NOTES: In general, the regional statistical series cover the countries of the ECAFE region except mainland China, Nepal and, in most of the cases, Afghanistan; in some cases, other countries have also been omitted because of lack of data. Except in the case of mainland China, countries omitted from the regional series are, from the point of view of the series, usually less important. To ensure comparability, the countries included in different periods for each series are the same.

a. Crop year beginning from the year stated. FAO source except rubber for which the International Rubber Study Group figures are used.

b. The index includes manufacturing and mining production only. The manufacturing index is computed as the arithmetic average of national indexes for China (Taiwan), India, Japan and the Philippines, weighted according to the net domestic product originated from manufacturing in the base year in terms of United States dollars. Income originating from manufacture in these four countries accounts for about 80 per cent of income from manufacture in the region as a whole, excluding mainland China. The mining index is an arithmetic average of national indexes for 12 countries, weighted by the net domestic product originated from mining in the base year. National indexes compiled by governments are used for China (Taiwan), India, Japan and the Philippines; special indexes compiled by the Secretariat based on the quantity of mineral production, weighted by base year prices, have been constructed for Brunei, Burma, Indonesia, southern Korea, Malaya, Pakistan and Thailand, the value added for each product not being available. The value of mineral products included in the regional index accounts for about two-thirds of income originating from mining in the region, excluding mainland China. The regional manufacturing and mining indexes have been combined to form the regional index of industrial production, weighted according to the net domestic product originating in the base year in these two sectors for countries for which such statistics are available.

c. Based on quantum indexes of exports and imports compiled by governments for Burma, Ceylon, China (Taiwan), India, Japan, Malaya and the Philippines. Quantum indexes for Indonesia, Pakistan and Thailand are derived from unit value indexes. These ten national indexes are combined to form the regional index with the dollar values of exports and imports in the base year 1953 as weights. Exports of the countries included in the index account for 88 per cent of total exports of the region, excluding mainland China, in the base year, and imports of the countries included in the index account for 85 per cent of total imports of the region, again excluding mainland China. Intra-regional trade is not deducted, and the index shows changes in the total quantum of trade of ECAFE countries, and not changes in the trade of the region vis-à-vis other regions. The regional unit value indexes of exports and imports are derived from the regional quantum indexes and the total values of exports and imports of these ten countries in United States dollars.

d. Exports of 18 primary products and food from 16 countries (excluding Afghanistan, mainland China and Nepal) are included in the index. To minimize the effect of transit trade, only export of domestic produce is included for Hong Kong and net export of rubber is used for Malaya and Singapore. The quantity of exports of each item is totalled for 16 countries, and relatives with 1953 as the base have been computed. These quantity relatives have been then weighted by the total value of exports of each commodity in 16 countries in terms of United States dollars in 1953 to form the quantum index. The unit value index is derived by dividing the quantum index into the index of total value of exports in United States dollars. The commodities included in the index account for 44 per cent of the total value of exports from the 16 countries. (If Hong Kong and Japan are excluded, the percentage is increased to 58.)

e. Figures prior to 1955 excluded Viet Nam.

PRODUCTION

2. INDEX NUMBERS OF PRODUCTION

1953=100[a]

	Weight	1948[c]	1953	1954	1955	1956	1956			1957			
							II	III	IV	I	II	Jul	Aug
CHINA (Taiwan)													
Industrial production[b]	100.0	32	100	105	115	117	130	132	140	133	141	142	...
Mining and quarrying	3.7	83	100	115	130	137	166	129	126	116	156	127	...
Coal	1.8	69	100	88	99	106	102	101	120	110	118	125	...
Manufacturing[b]	87.7	30	100	104	114	116	129	132	141	134	141	143	...
Food[b]	29.1	32	100	81	95	94	123	153	164	140	138	154	...
Textiles	14.6	10	100	121	120	112	115	112	113	107	119	127	...
Chemicals	8.1	39	100	114	122	132	138	139	137	138	150	153	...
Public utilities	8.6	47	100	112	119	132	128	131	138	139	141	145	...
Electricity	3.8	54	100	115	126	144	139	143	153	154	158	165	...
INDIA													
Industrial production	100.0	...	100	107	115	135	154	137	130	133	149	153	...
Mining	7.2	...	100	103	107	110	109	106	114	123	122	109	...
Manufacturing	90.7	...	100	107	116	137	157	139	130	133	151	156	...
Food	11.8	...	100	96	115	207	358	203	146	130	305	350	...
Textiles	48.0	...	100	103	106	112	115	114	110	113	109	109	...
Rubber products	3.4	...	100	117	129	140	137	144	139	156	153	154	148
Chemicals	4.2	...	100	108	122	131	128	132	134	140	134	133	...
Non-metallic mineral products[c]	3.3	...	100	115	124	142	139	137	153	159	148	137	...
Basic metal industries	8.0	...	100	121	119	124	119	126	126	130	124	122	...
Non-electrical machinery	0.6	...	100	153	205	261	256	253	300	336	352	...	...
Electrical machinery	1.5	...	100	112	138	184	178	190	198	213	213	...	...
Transport equipment	2.9	...	100	113	171	236	225	254	254	278	229	...	...
Electricity	2.1	...	100	112	116	145	146	144	151	156	165	164	...
INDONESIA													
Export products													
General[d]	...	63	100	108	109	*108*	...	...	...	...	...	...	...
Estate	...	60	100	100	99	*95*	...	...	...	...	...	...	...
Peasantry	...	66	100	123	117	*110*	...	...	...	...	...	...	...
Mining	...	64	100	105	111	*117*	...	...	...	...	...	...	...
Estate products (7 items)	...	61	100	99	94	92	93	92	91	*92*	...	...	...
JAPAN													
Industrial production	100.0	38	100	108	116	142	138	143	150	150	164	167	...
Manufacturing and mining	95.7	35	100	107	116	142	138	143	151	150	165	168	...
Mining	12.9	65	100	95	96	106	106	106	115	110	118	119	...
Manufacturing	82.8	33	100	109	119	146	141	147	154	154	170	173	...
Non-durable	47.8	27	100	114	128	144	148	151	155	154	169	173	...
Textiles	17.1	29	100	107	112	131	128	136	143	135	144	147	...
Chemicals	16.7	24	100	123	147	170	179	170	175	184	210	216	...
Durable	35.0	36	100	102	106	144	131	142	153	155	170	172	...
Metals	12.9	22	100	105	119	145	145	148	157	167	176	176	...
Machinery and transport equipment	14.6	40	100	97	94	148	121	139	154	150	174	180	...
Public utilities	4.3	62	100	107	115	134	132	130	144	144	148	153	...
KOREA (southern, 1954=100)													
Industrial production	100.0	...	...	100	119	143	146	156	161	145	194	189	...
Mining	10.0	...	...	100	115	145	151	137	151	161	194	211	...
Manufacturing	87.0	...	...	100	120	143	147	155	163	143	196	189	...
Textiles	48.0	...	...	100	119	142	143	143	165	162	186	183	...
Metal products and machinery	13.0	...	...	100	128	179	172	194	228	190	226	227	...
Electricity	3.0	...	...	100	98	124	119	132	148	148	138	142	...
PHILIPPINES													
Manufacturing	100.0	...	100	112	124	143	142	137	153	146	*157*	...	...
Non-durable manufacturing	69.7	...	100	106	118	135	136	127	146	140	*150*	...	...
Tobacco products	16.2	...	100	123	148	132	153	108	132	132	*168*	...	...
Textiles	8.5	...	100	97	78	104	94	101	120	134	*115*	...	...
Footwear and wearing apparel	7.5	...	100	105	111	77	76	74	76	74	*72*	...	...
Chemicals	19.4	...	100	106	123	153	152	157	155	150	*155*	...	...
Durable manufacturing	30.3	...	100	125	134	166	158	176	170	157	*174*	...	...
Stone, clay and glass products (including cement)	36.1	...	100	98	95	106	102	102	106	106	*119*	...	...
Metal products	6.0	...	100	112	146	220	207	248	227	186	*196*	...	...
Electrical appliances	4.6	...	100	113	153	182	173	235	182	236	*251*	...	...
Mining	...	...	100	94	102	113	106	119	118	*115*	...	...	...

a. Original base: *China*, 1946; *India*, 1951; *Indonesia*, 1938; *Japan*, 1934-36 for 1948, 1950 since 1953; *Korea*, 1955; *Philippines*, 1952 for 1953 to 1954 and 1955 since 1955.

b. Sugar production is excluded from the monthly and quarterly index but included in the annual index. Weights relate to annual index.

c. Manufactures of non-metallic mineral products except products of petroleum and coal.

d. 18 products, including forest products (jungle wood and rattan).

e. For Indonesia, figures relate to 1949.

3. PRODUCTION OF SELECTED COMMODITIES

Monthly averages or calendar months

	1948	1952	1953	1954	1955	1956	1956 II	1956 III	1956 IV	1957 I	1957 II	1957 Jul	1957 Aug
NATURAL RUBBER[a]													
Cambodia	1.4	1.5	1.9	2.0	2.3	2.7	2.4	2.8	3.8	1.6	2.3	3.1	...
Ceylon	8.0	8.2	8.3	8.0	7.9	8.1	6.9	9.2	9.8	6.5	7.2	9.7	...
India	1.3	1.7	1.8	1.8	1.9	2.0	1.8	2.0	2.7	1.6	1.5	1.5	...
Indonesia	36.6	63.5	58.6	62.5	62.1	58.1	57.7	66.8	66.0	50.5	54.0	88.3	...
Malaya (Federation of) & Singapore	59.1	49.5	48.6	49.5	54.1	53.1	48.9	54.2	54.7	54.1	49.4	57.4	...
Sarawak	3.4	2.7	2.0	2.0	3.3	3.4	3.7	3.1	3.3	3.7	3.5	3.6	...
Viet-Nam	2.3	3.4	4.2	4.3	4.5	4.9	4.6	5.2	6.7	2.8	4.7	5.8	5.7
COAL													
China (Taiwan)	138	191	199	177	197	211	203	201	240	218	235	250	...
India	2,551	3,074	3,046	3,123	3,236	3,338	3,296	3,250	3,446	3,657	3,675	3,384	...
Indonesia	45	81	75	75	68	69	70	74	60	60	58	...	...
Japan	2,810	3,613	3,878	3,560	3,535	3,880	3,876	3,826	4,283	4,109	4,410	4,363	...
Korea (southern)	67	48	72	74	109	151	151	143	165	175	184	194	...
Malaya[b] (Federation of)	32	27	24	19	17	15	15	14	15	17	14	11	11
Pakistan[c]	20	51	49	47	46	55	52	52	52	...	...	...	...
IRON ORE[d]													
Hong Kong	—	11	10	8	10	10	9	9	10	9	7	7	7
India	193	332	309	333	361	367	332	341	406	392	399	323	...
Japan[e]	47	116	128	136	130	159	153	186	180	149	181	224	...
Korea (southern)	—	2	2	3	2	5	5	7	5	10	17	18	14
Malaya (Federation of)	—	89	90	103	124	207	205	293	210	227	282	329	349
Philippines	18	97	101	119	119	121	99	139	117	121	123	...	...
TIN CONCENTRATES (*tons*)													
Burma	97	93	*80*	*80*	*80*	*78*	*75*	*80*	*80*	*80*	*80*	*80*	...
China	406	*450*	*525*	*625*	*700*	*700*	*700*	*700*	*700*	*800*	*800*	*800*	...
Indonesia	2,592	2,964	2,858	3,036	2,825	2,545	2,384	3,010	2,695	1,967	2,121	2,443	2,619
Japan	10	54	62	61	76	78	79	80	80	73	82	94	...
Laos & Viet-Nam	3	12	22	*9*	*21*	*20*	*20*	*20*	*20*	*20*	*20*	*20*	...
Malaya (Federation of)	3,794	4,812	4,763	5,139	5,186	5,274	5,398	5,209	5,264	5,005	4,878	5,114	5,071
Thailand	359	802	885	828	933	1,056	933	1,158	1,129	1,060	1,070	1,116	1,150
PETROLEUM, CRUDE[f]													
Brunei	224	423	406	402	438	470	472	470	472	457	...	...	...
Burma	4	10	12	15	18	19	20	20	20	27	36	39	37
Indonesia	361	710	852	898	978	1,061	1,067	1,067	1,113	1,118	1,266	...	...
Japan	13	26	25	25	27	26	26	26	26	26	26	27	28
Pakistan	5	18	20	22	23	24	23	24	24	24	25	...	...
Sarawak	4	4	4	6	6	6	6	6	6	6	...	...	...
SALT													
China (Taiwan)	30.5	26.0	13.5	30.7	35.1	27.3	57.3	10.6	11.2	16.0	37.8	10.0	...
India	197.6	239.1	268.5	229.9	252.2	276.9	670.9	145.5	56.8	191.6	772.2	226.4	...
Indonesia	29.7	26.9	22.3	10.9	3.8	*4.0*	3.0	1.9	*11.1*	...	...	...	...
Japan[g]	24.3	36.1	38.4	35.4	46.1	52.3	41.1	70.4	57.7	54.4	72.4	64.9	...
Korea (southern)	...	17.0	16.1	15.0	29.5	16.4	24.6	33.5	7.4	0.3	61.7	35.6	27.7
SUGAR[h]													
China (Taiwan)	24.6	52.0	76.7	53.5	66.9	64.6	8.1	—	65.5	189.3	22.8	—	...
India	91.0	126.5	109.3	85.3	135.0	165.1	149.5	6.6	150.8	370.1	159.0	10.1	...
Indonesia	...	38.4	51.6	59.8	71.4	63.7	74.2	158.5	22.2	—	96.2	241.1	181.8
Pakistan	0.8*	5.4	7.3	6.4	8.0	7.4	5.4	—	3.4	19.8	6.4	...	...
Philippines	30.1	81.4	85.7	108.4	103.7	97.0	...	...	...	...	...	...	...
TEA													
Ceylon	11.3	12.0	13.0	13.9	14.4	14.2	18.0	10.6	15.5	16.0	18.7	12.7	12.5
China (Taiwan)	0.9	1.0	1.4	1.6	1.1	1.0	1.9	1.3	0.8	0.5	1.7	1.0	...
India	21.5	23.2	23.0	24.1	25.0	25.1	25.3	45.4	26.1	4.1	23.5	40.3	...
Indonesia	...	3.1	3.1	3.9	3.6	3.5	3.5	3.2	4.0	3.8	3.9	3.2	3.0
Pakistan	2.2*	2.0	2.1	2.1	2.0	2.1	2.0	3.7	2.7	0.2	1.3	3.2	...
COTTON YARN													
China (Taiwan)	—	1.1	1.6	1.9	2.1	2.0	2.1	2.0	2.1	2.0	2.2	2.6	...
Hong Kong	...	2.5	2.7	3.3	3.5	3.8	4.0	3.6	3.6	3.7	3.9	4.1	4.2
India	55.0	54.7	56.8	58.9	62.1	63.2	61.0	65.3	66.1	68.1	66.6	68.1	...
Japan	10.4	29.4	34.5	38.7	34.9	41.1	41.1	42.0	44.7	42.7	45.7	46.2	44.2
Korea (southern)	0.5	0.8	1.1	1.8	2.2	2.6	2.3	2.3	3.2	3.2	3.4	3.2	3.2
Pakistan	0.2	0.8	4.5	7.3	10.4	11.4	11.1	10.9	12.0	11.6	11.7	...	...
COTTON FABRICS (*Mn metres*)													
Ceylon (*Mn sq. metres*)	0.5	0.7	0.6	0.4	0.4	*0.6*	0.4	*0.6*	*0.5*	0.1	...	...	...
China (Taiwan)	1.0	7.1	10.9	13.8	13.6	11.6	11.9	11.8	11.3	10.8	12.6	12.6	...
India	337	350	374	382	390	404	404	418	412	418	408	420	...
Indonesia	...	2.4	3.6	3.8	4.2	4.4	4.1	4.3	4.7	4.7	...	...	...
Japan (*Mn sq. metres*)	64	156	196	222	210	242	250	243	256	251	278	271	258
Korea (southern, *Mn sq. metres*)	2.4	4.2	6.0	8.0	8.4	10.2	9.4	9.3	12.4	12.9	13.7	13.4	...
Pakistan	6.7	13.3	19.2	26.5	34.5	28.2	34.6	38.1	42.5	40.3	38.5	...	...
Philippines	0.6	0.5	0.9	1.5	0.9	1.4	1.4	1.7	1.3	1.6	1.2	0.6	...
JUTE MANUFACTURES													
China (Taiwan) (Gunny bag. *1,000 pcs*)	228	549	701	754	898	1,050	1,107	992	1,190	1,067	1,056	1,107	...
India	92.2	80.6	73.6	78.6	87.0	92.5	99.7	90.8	84.4	85.9	86.1	87.3	...
Pakistan	...	1.5‡	4.2‡	4.5	7.5	12.1	12.3	12.0	12.3	11.9	12.8	...	...
PAPER													
China (Taiwan)	0.8	2.0	2.0	2.5	2.8	3.6	3.6	3.5	3.7	3.8	3.9	4.2	...
India	4.3	7.7	8.1	8.7	10.1	10.4	10.2	10.7	10.8	10.3	10.4	...	...
Japan[i]	35.3	111.9	146.8	160.1	183.6	214.0	209.8	218.0	232.7	234.9	257.4	265.4	...
Korea (southern)	...	0.9	0.8	1.5	1.7	2.0	1.9	2.1	1.9	1.6	1.7	1.7	1.8
Pakistan	...	...	...	...	1.1	1.4	*1.2*	1.5	1.5	1.7	*1.5*	...	...

3. PRODUCTION OF SELECTED COMMODITIES *(Cont'd)*

Monthly averages or calendar months — *Thousand tons*

	1948	1952	1953	1954	1955	1956	1956 II	1956 III	1956 IV	1957 I	1957 II	1957 Jul	1957 Aug
VEGETABLE OILS													
China (Taiwan): Edible oil	0.1	0.5	0.8	0.7	0.8	0.9	0.6	1.1	1.0	0.6	0.6	0.8	...
India: Edible oil (Vanaspati)	11.0	16.2	16.2	19.5	22.1	21.6	22.2	19.4	20.1	27.6	26.4	...	...
Indonesia: Palm oil	...	12.2	13.4	14.1	13.8	13.7	13.1	15.0	14.7	11.3	13.5	16.5	...
Japan: Coconut oil	1.1	1.3	1.2	1.6	2.3	2.0	2.0	2.1	2.0	2.5	*2.7*	...	...
Others	2.0	5.0	8.8	9.0	13.0	15.0	13.6	15.6	16.2	16.4	*13.7*	...	...
Malaya: (Federation of) Coconut oil	4.3	6.9	6.7	8.2	8.0	9.2	8.8	10.3	9.5	8.4	7.4	9.0	8.9
Palm oil	3.8	3.8	4.2	4.6	4.8	4.7	4.7	5.2	5.0	4.0	4.9	5.9	5.4
Pakistan: Vegetable oil	—	0.7	0.9	0.9	1.2	1.4	1.3	1.3	1.4	1.6	...	...	...
Philippines: Coconut oil	7.7	12.1	11.8	12.2	13.3	*17.7*	...	...	...	...	...	...	...
Singapore: Coconut oil	3.8	2.2	1.4	3.2	2.8	3.4	2.9	3.6	3.6	3.4	3.7	4.2	...
PETROLEUM PRODUCTS[j]													
Burma	1.8	6.7	8.3	10.2	11.1	11.4	11.4	11.8	12.0	...	...	...	...
China (Taiwan, *1,000 Kl.*)	19.5	23.6	27.0	37.0	51.0	52.8	45.9	54.8	47.2	47.2	59.9	59.7	...
Indonesia	...	760.1	808.2	825.8	863.9	859.0	858.2	842.4	872.1	901.1	897.0	...	...
Japan (*1,000 Kl.*)	14.8	392.2	505.6	616.7	717.8	984.1	930.2	994.5	1,111.9	1,118.1	1,227.9	1,231.7	...
Pakistan	0.7	4.9	5.4	6.2	6.3	7.0	6.1	6.2	8.3	7.6	...	...	...
CEMENT													
Burma	...	3.4	3.5	4.9	5.0	3.2	3.7	3.9	1.3	4.5	3.1	3.0	2.7
Ceylon	...	5.1	5.5	7.0	7.1	7.1	5.7	8.1	6.7	4.3	3.9	4.6	...
China (Taiwan)	19.6	37.1	43.3	44.7	49.2	49.2	47.9	52.4	50.2	53.5	54.1	50.3	...
Hong Kong	4.4	5.8	5.3	8.4	9.7	10.1	10.6	10.1	8.2	9.3	9.2	9.7	8.1
India	131.0	299.5	320.0	372.0	372.6	418.0	418.5	403.9	434.2	466.8	439.6	...	...
Japan	154.9	593.1	730.7	889.6	879.7	1,085.3	1,121.4	1,152.8	1,167.6	1,157.3	1,373.0	1,186.1	...
Korea (southern)	1.9	2.2	3.7	5.1	4.7	3.7	6.7	3.2	2.4	4.5	6.4	7.4	6.5
Malaya (Federation of)	...	...	2.7	7.2	9.1	8.7	7.9	8.8	9.0	9.3	9.2	10.2	10.5
Pakistan	27.4	44.9	50.5	57.0	57.8	65.4	62.6	59.8	79.2	95.2	89.1	...	...
Philippines	10.0	26.4	26.5	26.7	34.1	37.0	36.5	32.9	35.1	35.7	32.7	32.8	...
Thailand	6.9	20.7	24.0	31.9	32.2	33.1	36.8	31.4	31.8	31.3	28.8	33.1	40.8
STEEL (ingots and metal for castings)													
China (Taiwan)	0.6	1.4	2.5	4.1	4.8	6.0	5.8	5.9	6.7	7.9	5.6	5.6	...
India	106.4	133.6	127.6	143.4	144.3	147.1	139.7	145.8	149.5	148.2	139.2	...	...
Japan	142.8	582.4	638.5	645.0	784.0	925.5	901.7	948.0	998.9	1,044.2	1,122.3	...	...
Pakistan	0.2	0.6	0.9	0.8	0.9	0.9	0.5	1.0	1.0	1.2	1.0	0.9	0.9
TIN METAL (*tons*): Malaya (Fed. of)	4,209	5,320	5,284	6,025	5,980	6,203	6,508	6,034	6,255	6,200	6,006	5,645	...
CONSTRUCTION—NEW BUILDING													
Ceylon: Completed[k]													
(Floor area—*1,000 sq. metres*)													
Residential	...	3.70	6.27	7.22	6.72	6.49	6.32	8.24	5.49	4.99	...	...	...
Non-residential	...	1.65	2.29	2.70	2.02	2.20	2.26	1.81	2.95	1.53	...	...	...
Hong Kong: Completed													
(Cost—*1,000 HK dollars*)													
Residential	...	...	4,128	4,236	8,902	8,654	8,624	7,658	9,352	7,571	10,811	8,178	8,667
Industrial	...	...	564	671	862	815	744	436	944	1,467	1,265	518	148
Commercial	...	...	86	886	336	1,438	3,184	1,851	501	958	873	446	93
Others	...	...	1,828	1,807	1,845	2,197	2,290	1,018	2,024	1,621	1,565	2,301	755
Japan: Started													
(Floor area—*1,000 sq. metres*)													
Residential	1,921	1,434	1,421	1,400	1,454	1,752	1,841	1,851	1,676	1,653	2,063	2,053	...
Non-residential	1,239	1,381	1,448	1,367	1,328	1,665	1,669	1,756	1,779	1,805	1,983	1,776	...
Korea, southern: Permits issued													
(Floor area—*1,000 sq. metres*)													
Residential	...	...	...	...	13[q]	27	33	41	28	9	28	18	28
Non-residential	...	...	...	...	53[q]	65	88	77	61	38	79	53	6
Philippines: Permits issued (Manila)													
(Value—*1,000 pesos*)													
Residential	3,539	1,662	1,573	850	1,295	1,596	1,775	1,091	1,695	2,182	1,783	2,011	1,083
Non-residential	2,370	1,559	2,339	1,620	1,857	2,298	1,756	2,231	2,849	4,760	2,259	2,137	4,349
Thailand: Permits issued (Bangkok)													
(Number of permits)													
Residential	126	...	251	214	244	201	237	171	153	223	204	198	196
Non-residential	41	...	57	72	72	64	75	65	69	62	53	40	34
ELECTRICITY (*Mn kWh*)													
Cambodia	1	2	2	2	2	3	3	3	3	3	3	...	...
Ceylon	5	11	12	14	*15*	*16*	*16*	*17*	*17*	*16*	...	...	...
China (Taiwan)	70	118	130	150	164	187	181	186	200	200	206	215	...
Hong Kong	13	33	36	41	47	54	54	58	54	57	60	67	68
India	381	510	558	627	707	803	801	802	839	851	911	928	...
Japan	2,965	4,304	4,642	4,967	5,433	5,118	6,137	5,506	5,426	5,925	6,815	6,726	...
Korea (southern)	41	53	61	75	73	93	88	99	112	110	103	106	108
Malaya[m] (Federation)	...	61	64	73	79	83	82	84	87	85	88	...	...
Pakistan	11	25	34	41	51	...	66	...	...	...	...	...	...
Philippines (Manila)	30	46	52	58	65	76	74	78	83	84	91	96	100
Singapore	11	18	23	27	*31*	36	36	37	38	38	41	...	...
Thailand (Bangkok)[n]	4	7	8	13	16	...	18	*19*	...	...	...	...	...
Viet-Nam[p]	8	19	25	24	17	17	18	17	18	16	19	...	...

a. Including latex. b. Lignite. c. Including lignite.

d. Approximate metal content of ores as follows: Hong Kong, 45% India, 65%; Japan and the Philippines, 55%; Malaya, 60%.

e. Including iron sand.

f. Specific gravity: Brunei, Burma, Pakistan and Sarawak, 0.84; Indonesia, 0.85; Japan, 0.90.

g. Production in government licensed plants only.

h. Annual figures relate to crop year for India and Philippines, calendar year for other countries.

i. Including paper board.

j. Comprising motor spirit, kerosene and diesel oil for Burma; gasoline, diesel oil, kerosene and fuel oil for China (Taiwan), motor spirit, aviation spirit, kerosene, heavy oil, wax and paraffin, asphalt and cutback for Indonesia; gasoline, diesel oil, kerosene, fuel oil, gas oil, lubricating oil and others for Japan; motor spirit and kerosene for Pakistan.

k. Excluding particulars of buildings under building schemes.

m. Including electricity purchased from Singapore.

n. Consumption of electricity; Bangkok Electric Works and Sam Sen Power Station.

p. From July 1954, Southern Viet-Nam only. q. December.

4. VOLUME OF TRAFFIC: RAILWAYS, SEA-BORNE SHIPPING AND CIVIL AVIATION

Monthly averages or calendar months

	1948	1952	1953	1954	1955	1956	1956 II	1956 III	1956 IV	1957 I	1957 II	1957 Jul	1957 Aug
RAILWAYS[a]													
Passenger-kilometres (*Mn*)													
Burma†	40	34	47	57	66	70	80	66	82	76	85	66	...
Cambodia	...	3	4	4	5	6	6	5	5	6	8	...	...
China (Taiwan)	184	161	173	186	211	237	233	220	253	285	281	...	...
India‡	4,925	4,601	4,723	4,892	5,040	5,464	5,999	5,033	5,207	5,618	5,853	...	...
Japan‡	6,595	6,707	6,963	7,253	7,603	8,174	8,239	8,204	7,994	8,257	8,487	...	...
Korea (southern)‡	236	219	262	332	316	337	328	356	348	263	273	254	...
Pakistan‡	656	795	730	698	790	*845*	828	857	855	*836*	...	...	...
Philippinesø	26	35	32	35	37	43	59	45	55	53	...	...	...
Thailand	109	188	191	196	167	155	168	134	140	185	182	149	150
Viet-Nam[b]	...	6	8	‖ 11	‖ 31	32	34	33	27	36	39	...	...
Freight ton-kilometres (*Mn*)													
Burma†	52	24	35	44	53	51	48	46	49	50	54	45	...
Cambodia	...	4	4	5	2	4	5	2	3	6	5	...	...
China[c] (Taiwan)	53	104	120	122	137	142	145	126	155	162	159	...	...
India‡	3,040	3,879	4,002	4,159	4,595	5,166	4,595	5,031	5,180	5,858	5,615	...	...
Japan‡	2,109	3,227	3,368	3,277	3,500	3,861	3,741	3,768	4,134	3,799	4,023	3,979	3,912
Korea (southern)‡	87	256	229	160	179	189	197	195	189	164	200	207	...
Malaya	26	31	31	32	33	37	37	37	38	38	39	...	...
Pakistan‡	319	451	472	450	419	*514*	484	421	597	*576*	...	...	...
Philippinesø	10	11	12	12	13	12	13	13	12	15	...	...	...
Thailand	25	46	54	57	65	76	75	71	83	84	80	88	...
Viet-Nam[b]	...	13	15	‖ 12	‖ 7	5	6	6	6	7	7	...	...
INTERNATIONAL SEA-BORNE SHIPPING													
Freight loaded (L) and unloaded (U) in external trade (1,000 tons)													
Ceylon[d] L	63	67	73	‖ 92	88	82	65	86	92	111	67	96	81
U	141	174	182	‖203	191	205	174	229	232	250	257	283	305
China (Taiwan) L	13	78	121	85	106	104	111	71	102	162	109	60	...
U	22	117	109	142	155	177	166	188	170	178	195	179	...
Hong Kong L	104	128	126	126	141	162	160	166	164	150	148	130	130
U	236	284	279	303	347	386	368	378	409	433	440	371	459
Indonesia[e] L	432	860	1,034	1,062	1,016	1,086	1,148	1,051	1,286	918	1,194	...	...
U	160	396	350	326	272	354	335	332	408	380	729	...	...
Japan[f] L	165	421	413	476	643	680	675	732	661	722	*743*	...	...
U	563	1,978	2,607	2,794	3,059	3,875	3,811	3,970	4,036	4,400	5,502	...	...
Korea (southern) L	3	18	12	9	8	11	11	14	13	11	21	9	...
U	3	39	95	82	171	74	53	74	110	63	125	207	...
Pakistan‡ L	...	97	109	101	124	*105*	86	89	143	113	78	50	89
U	...	337	293	218	236	*351*	270	355	415	383	354	424	434
Philippines L	...	368	375	442	483	453	469	468	365	526	...	...	...
U	...	215	283	251	280	357	326	311	516	275	...	...	...
Singapore[g] L	...	224	‖438	450	510	552	520	545	538	546	534	560	...
U	...	441	‖732	769	883	921	916	914	942	949	921	925	...
Thailand (Bangkok) L	...	149	143	138	161	164	153	156	203	217	191	191	207
U	...	94	107	108	116	126	120	123	134	134	150	139	123
Viet-Nam (Saigon) L	...	23	64	79	64	47	50	42	38	56	80	69	81
U	...	100	132	170	136	111	91	118	110	111	129	126	116
Entrances (E) and clearances (C) of vessels with cargo in external trade (1,000 net registered tons)													
Burma[h] E	118	98	104	124	113	112	118	94	112	119	114	95	93
C	157	132	146	150	159	155	147	162	151	172	177	177	162
India E	646*	775	750	753	806	829	781	821	841	865	...	...	...
C	567*	743	885	800	702	737	722	676	695	642	...	...	...
CIVIL AVIATION[i]													
Passenger-kilometres (*Mn*)													
Burma	...	3.53	4.58	4.55	5.11	5.23	4.04	2.56	...	...	...	...	...
Ceylon	0.36	2.42	1.67	0.77	0.79	2.44	2.13	2.82	3.53	...	...	...	...
China (Taiwan)	...	2.49	3.12	3.64	3.85	4.02	3.98	4.08	4.43	3.78	4.49	4.57	...
India	23.65	32.46	32.15	36.70	42.92	56.60	53.29	54.27	66.05	64.34	65.57	...	...
Indonesia	8.49	13.28	14.03	15.01	19.95	22.40	...	...	...	...	...	...	...
Japan	...	5.75	11.20	19.47	27.43	38.04	39.55	42.25	41.41	38.71	...	...	...
Pakistan	...	5.81	3.46	4.88	9.21	12.03	11.14	12.29	15.00	16.50	16.39	...	...
Philippines	14.57	17.78	18.97	10.84	10.08	11.68	12.87	10.60	12.67	12.77	14.52	13.09	...
Thailand	0.93	2.26	2.60	3.35	4.14	5.09	5.26	4.54	5.95	5.62	7.10	6.59	6.02
Freight ton-kilometres (*1,000*)													
Burma	...	106	127	181	112	101	109	96	...	...	...	...	...
Ceylon	2	147	69	12	14	107	113	158	114	...	...	...	...
China (Taiwan)	...	260	179	199	203	164	158	145	191	165	184	136	...
India	475	2,180	2,203	2,357	2,879	3,215	2,999	3,321	3,348	3,283	3,092	...	...
Indonesia	389	595	620	621	662	729	751	709	702	720	734	724	825
Japan	...	24	55	258	508	760	717	754	955	856	...	...	...
Pakistan	...	167	153	147	214	260	240	282	340	269	293	...	...
Philippines	540	817	778	398	347	294	280	271	348	347	346	303	...
Thailand	17	85	140	151	107	112	112	107	127	143	163	158	167

a. Railway traffic coverage: *China*, Taiwan Railway Administration; *India* and *Pakistan*, class I railways; *Indonesia*, postwar data relate to Federal area only; *Japan*, State Railways only; *Philippines*, Manila Railroad Company.
b. From August 1954, southern Viet-Nam only.
c. Including service traffic.
d. 1938-53 port of Colombo only.
e. Beginning 1952 Federal area only.
f. Cargo carried by steel vessels only; excluding military goods.
g. Prior to 1953, excluding oil handled at Pulo Bukom and Pulo Sebarok.
h. Total number of entrances and clearances made during each voyage but excluding sailing vessels. Annual figures relate to 12 months ending September of postwar year stated.
i. Scheduled domestic and international routes.

EXTERNAL TRADE

5. VALUE OF EXPORTS AND IMPORTS AND BALANCE OF TRADE

Monthly averages or calendar months — *Millions*

	BRUNEI (*Malayan dollar*)			BURMA (*kyat*)			CAMBODIA[a] (*riel*)			CEYLON (*rupee*)			CHINA (Taiwan) (*NT dollar*)			HONG KONG (*HK dollar*)		
	Exports	Imports	Balance	Exports	Imports	Balance	Exports	Imports	Balance	Exports	Imports	Balance	Exports	Imports	Balance	Exports	Imports	Balance
															ICA imports			Exports, domestic
1951	23.3	4.2	+19.1	83	55	+28	20	8	+12	159	130	+29	90	141	42	372	408	...
1952	23.0	6.4	+16.6	105	76	+29	33	14	+19	125	142	−17	122	211	64	243	316	...
1953	23.5	9.5	+14.0	94	70	+24	161	124	+37	131	134	− 3	165	230	92	228	323	53
1954	22.8	8.3	+14.5	100	81	+19	183	165	+18	151	116	+35	121	275	125	202	286	57
1955	25.3	8.7	+16.6	90	72	+18	117	139	−22	162	122	+40	160	262	127	212	310	61
1956	27.5	9.5	+18.0	97	78	−19	103	165	−62	144	135	+ 9	244	400	166	268	381	65
1956																		
II	27.2	8.4	+18.8	93	79	+14	123	146	−23	144	125	+19	260	428	184	291	410	69
III	27.2	9.6	+17.6	98	72	+26	104	182	−78	153	142	+11	177	370	169	261	362	62
IV	28.4	10.5	+17.9	90	91	− 1	107	161	−54	145	151	− 6	256	431	164	266	386	64
1957																		
I	27.3	10.6	+16.7	*95*	*99*	*− 4*	161	106	+55	172	154	+18	417	370	119	279	465	68
II	...	...	...	*99*	*122*	*−23*	170	151	+19	124	156	−32	334	415	185	248	435	64
Jul.	...	...	...	...	...	...	148	182	−34	151	143	+ 8	145	401	204	241	417	68
Aug.	...	...	...	...	...	...	145	208	−63	125	192	−67	347	545	153	210	388	61

	INDIA[b] (*rupee*)			INDONESIA[c] (*rupiah*)			JAPAN (*1,000 Mn yen*)			KOREA,[e] southern (*1,000 Mn hwan*)			LAOS (*kip*)			NORTH BORNEO (*Malayan dollar*)		
									Special procurement[d]									
1951	653	712	− 59	409	276	+133	40.7	61.4	10.6	0.04	0.10	−0.06	5	11	− 6	9.6	5.9	+3.7
1952	516	674	−158	888	900	− 12	38.2	60.9	9.2	0.16	0.59	−0.43	7	28	− 21	5.4	5.9	−0.5
1953	443	481	− 38	798	726	+ 72	38.2	72.3	13.3	0.33	1.86	−1.53	6	32	− 26	4.7	5.5	−0.8
1954	469	515	− 46	813	598	+215	48.9	72.0	7.2	0.56	2.32	−1.76	3	47	− 44	6.4	6.2	+0.2
1955	504	540	− 36	885	574	+311	60.3	74.1	5.2	0.75	4.02	−3.27	6	55	− 49	8.7	7.3	+1.4
1956	504	679	−175	838	810	+ 28	75.0	96.9	5.0	1.06	2.95	−1.90	9	108	− 99	10.1	9.8	+0.3
1956																		
II	438	639	−201	821	867	− 46	72.1	96.9	5.9	1.30	3.03	−1.73	8	99	− 91	8.9	9.7	−0.8
III	474	700	−226	856	779	+ 77	74.3	99.0	7.1	0.96	2.68	−1.72	13	104	− 91	11.2	11.1	+0.1
IV	553	701	−148	942	695	+247	86.6	108.6	3.9	1.04	2.74	−1.70	7	119	−112	10.7	10.7	—
1957																		
I	549	785	−236	743	737	+ 6	78.1	127.8	4.3	0.94	2.17	−1.23	6	102	− 96	10.2	10.2	—
II	496	871	−375	802	879	− 77	80.5	153.4	8.3	1.00	3.34	−2.34	8	114	−106	9.7	9.8	−0.1
Jul.	...	...	...	1,123	832	+291	90.4	140.2	26.3	0.86	7.07	−6.21	...	...	...	...	...	...
Aug.	...	...	...	1,097	...	...	93.8	130.5	4.6	0.96	3.70	−2.74	...	...	...	...	...	...

	PAKISTAN (*rupee*)			PHILIPPINES[f] (*peso*)			SARAWAK (*Malayan dollar*)			THAILAND (*baht*)			VIET-NAM[g] (*piastre*)			MALAYA (Fed. of) & SINGAPORE (*Malayan dollar*)		
1951	210	151	+59	72.6[r]	81.7	− 9.1	42.4	32.0	+10.4	373	270	+103	211	510	−299	506	396	+110
1952	147	174	−27	58.7	70.5	−11.8	36.5	31.9	+ 4.6	487	427	+ 60	164	752	−588	326	323	+ 3
1953	121	97[r]	+24	67.3	76.1[r]	− 8.8	35.4	32.9	+ 2.5	492	514	− 22	157	883	−726	252	270	− 18
1954	99	92	+ 7	67.5	80.4	−12.9	35.5	33.2	+ 2.3	515	556	− 41	164	946	−782	259	262	− 3
1955	125	90	+35	66.8	91.3	−24.5	39.8	36.8	+ 3.0	597	600	− 3	201	768	−567	346	318	+ 28
1956	135	141[r]	− 6	75.2	84.4	− 9.2	40.6	38.7	+ 1.9	578	624	− 46	122	614	−492	347	346	+ 1
1956																		
II	114	110	+ 4	78.0	88.1	−10.1	41.4	38.4	+ 3.0	537	618	− 81	62	564	−502	328	345	− 17
III	96	141	−45	72.2	87.0	−14.8	40.4	38.8	+ 1.6	530	612	− 82	156	613	−457	339	342	− 3
IV	123	200	−77	78.4	89.0	−10.6	39.6	39.9	− 0.3	673	633	+ 40	123	627	−504	355	347	+ 8
1957																		
I	217	184[r]	+33	78.0	94.1	−16.1	40.0	37.6	+ 2.4	697	711	− 14	186	717	−531	359	385	− 26
II	98	175	−77	83.3	111.2	−27.9	41.7	37.9	+ 3.8	615	705	− 90	230	845	−615	334	357	− 23
Jul.	78	105	−27	78.2	113.3	−35.1	...	...	...	684	743	− 59	271	1,032	−761	357	388	− 31
Aug.	73	129	−56	68.8	94.1	−25.3	...	...	...	636	660	− 24	...	...	...	339	394	− 55

	MALAYA (Federation of, *Malayan dollar*)						SINGAPORE (*Malayan dollar*)		
	Including trade with Singapore			Excluding trade with Singapore			Excluding trade with Malaya (Fed. of)		
1951	282	156	+126	165	95	+70	341	301	+40
1952	178	138	+ 40	104	84	+20	222	239	−17
1953	133	121	+ 12	77	75	+ 2	175	195	−20
1954	135	110	+ 25	78	67	+11	181	194	−13
1955	198	129	+ 69	114	80	+34	232	239	− 7
1956	188	146	+ 42	119	88	+31	228	258	−30
1956									
II	176	143	+ 33	110	87	+23	239	306	−67
III	185	149	+ 36	119	89	+30	220	253	−33
IV	195	153	+ 42	122	92	+30	233	255	−22
1957									
I	193	157	+ 36	116	99	+17	243	286	−43
II	174	144	+ 30	110	88	+22	224	269	−45
Jul.	174	150	+ 24	115	89	+26	242	299	−57
Aug.	193	177	+ 16	129	110	+19	210	284	−74

GENERAL NOTES: Special trade system for Cambodia, China, Indonesia, Korea, Laos, North Borneo, Sarawak and Viet-Nam; general trade system for other countries. Figures on imports include aid unless otherwise specified.

a. Prior to 1953, excluding trade with Laos and Viet-Nam.

b. Up to 1951, imports exclude special imports of grain, pulse and flour.

c. From 13 Mar. 1950 to 2 Feb. 1952 inclusive, excluding value of exchange certificates. For 1 Jan-3 Feb 1952, import and export values are based on 3 times the official exchange rate and from 4 Feb. 1952 onwards they are based on official exchange rate of the Bank Indonesia.

d. Not included in trade statistics.

e. For exports: Up to Mar. 1951, valued f.o.b., from Apr. 1951 valuation based on domestic market prices. For imports: excluding Government imports, military supplies and goods imported by various aid agencies; up to Mar. 1951, valued c.i.f.; from Apr. 1951 valuation based on local market prices excluding distributive margins and net of import duties and excise.

f. Imports valued f.o.b.

g. Prior to January 1955, excluding trade with Cambodia and Laos but including transit trade of these countries with other countries through Viet-Nam. Beginning June 1955, trade of Republic of Viet-Nam only.

6. DIRECTION OF INTERNATIONAL TRADE

Quarterly averages or quarters

Million dollars

TRADE WITH	Year and Quarter	BURMA[b]		CAMBODIA		CEYLON		CHINA (Taiwan)		HONG KONG	
		Exports	Imports	Exports	Imports	Exports	Imports	Exports	Imports	Exports	Imports
1. All countries	1948	57.2	45.0	...	...	76.4	75.1	...	...	101.1	130.8
	1951	51.6	34.4	...	...	100.0	82.0	24.6	36.3	195.2	214.0
	1952	66.0	48.0	...	...	78.8	89.6	32.4	46.8	127.4	165.7
	1953	59.4	44.2	...	...	82.3	84.5	31.9	45.5	120.8	170.6
	1954	62.1	51.1	...	...	95.0	73.4	23.3	52.8	120.3	164.9
	1955	56.7	45.0	10.0	11.9	98.3	76.6	30.8	50.2	127.5	180.0
	1956	*61.7*	*49.4*	9.2	14.2	86.8	85.6	29.6	48.4	162.9	221.2
	1956 II	58.9	49.9	10.5	12.5	86.5	79.1	31.5	51.9	174.6	238.9
	III	62.0	45.3	8.9	15.6	92.5	88.9	21.4	44.7	155.5	209.0
	IV	*61.1*	*57.6*	10.3	13.8	85.6	94.3	31.0	52.2	159.6	221.6
	1957 I	...	*62.2*	13.8	9.1	102.3	97.1	50.5	44.8	164.0	261.3
	II	...	*77.1*	*14.6*	*13.0*	*70.3*	*98.5*	*40.4*	*50.2*	*143.7*	*243.2*
2. ECAFE Countries[a] (including Japan)	1948	50.0	14.4	...	...	4.6	26.3	...	...	60.9	53.8
	1951	42.4	20.0	...	...	7.6	31.2	19.3	16.1	149.4	103.6
	1952	51.6	28.7	...	...	12.0	32.6	26.8	17.4	100.2	90.2
	1953	45.0	22.9	...	...	16.3	34.8	20.7	17.5	90.0	93.4
	1954	52.1	26.3	...	...	18.6	32.0	18.2	20.7	72.5	76.1
	1955	40.4	21.5	4.3	7.5	11.8	32.2	24.4	18.0	69.0	91.7
	1956	*43.6*	*22.5*	3.2	9.1	14.4	35.2	20.4	19.7	93.1	115.6
	1956 II	38.7	25.5	2.5	7.4	15.2	27.7	19.8	18.9	105.3	133.5
	III	44.6	19.4	3.4	9.9	20.6	36.8	12.4	16.7	85.0	97.0
	IV	*47.3*	*28.6*	4.3	8.6	12.3	44.3	23.6	23.2	89.2	112.5
	1957 I	...	*28.1*	5.0	4.8	18.9	36.0	33.4	20.2	94.0	136.4
	II	...	*37.1*	*6.1*	*9.3*	*10.7*	*37.6*	*25.2*	*19.3*	*76.8*	*112.0*
3. Japan	1948	0.1	0.3	...	...	0.1	1.0	...	...	3.1	5.0
	1951	7.2	5.9	...	...	0.4	4.2	11.9	12.5	8.4	17.2
	1952	8.2	7.2	...	...	0.5	5.4	17.0	12.6	5.4	21.1
	1953	11.2	7.3	...	...	0.5	3.6	14.5	13.5	9.7	16.8
	1954	14.6	11.2	...	...	0.8	4.0	11.9	17.6	5.0	20.3
	1955	11.4	9.6	0.1	1.2	0.6	5.2	18.3	15.3	6.4	23.0
	1956	*9.1*	*8.2*	0.4	2.7	0.7	6.0	11.0	17.6	13.9	35.5
	1956 II	14.0	9.6	0.1	2.2	0.5	5.4	10.1	16.6	10.5	49.5
	III	2.2	5.5	0.4	2.6	0.6	6.0	2.7	14.5	17.2	23.4
	IV	*1.9*	*12.0*	0.8	3.6	0.7	7.4	13.0	21.2	19.4	29.7
	1957 I	...	*13.2*	0.2	0.9	1.2	8.3	17.6	17.6	16.9	35.7
	II	...	*17.5*	*0.8*	*1.2*	*1.0*	*6.4*	*12.8*	*16.5*	*12.8*	*30.9*
4. Western Europe (including UK)	1948	5.8	23.9	...	...	30.7	16.4	...	...	8.9	32.6
	1951	5.4	11.6	...	...	50.4	25.5	0.8	1.6	17.6	70.0
	1952	8.4	14.6	...	...	32.4	27.2	1.7	2.6	9.8	50.6
	1953	6.4	16.9	...	...	30.4	27.3	3.9	6.3	10.5	50.9
	1954	5.4	20.2	...	...	34.8	24.2	1.4	4.5	10.6	42.4
	1955	8.7	18.7	2.9	3.7	36.8	24.7	1.7	3.5	15.9	41.6
	1956	*7.4*	*18.8*	3.1	3.0	34.4	28.0	1.8	4.5	18.6	46.9
	1956 II	6.0	16.3	4.8	2.1	38.8	31.6	1.3	5.9	18.2	45.2
	III	6.3	17.3	2.9	3.7	31.6	27.3	3.4	3.7	20.1	50.1
	IV	*7.2*	*19.8*	2.9	3.1	35.9	25.8	1.6	3.9	18.0	48.7
	1957 I	...	*22.8*	3.6	3.6	39.1	31.7	0.5	3.4	20.7	64.1
	II	...	*24.6*	*5.9*	*3.0*	*25.8*	*32.0*	*0.9*	*4.0*	*18.8*	*65.4*
5. United Kingdom	1948	5.1	21.1	...	...	22.9	13.2	...	...	4.9	19.0
	1951	3.3	8.4	...	...	30.8	18.1	0.6	0.8	10.4	27.1
	1952	6.2	10.8	...	...	21.9	20.2	1.4	0.9	3.6	20.6
	1953	4.4	11.8	...	...	20.4	19.0	2.1	2.0	5.2	20.8
	1954	3.9	12.5	...	...	26.4	15.4	0.7	1.3	7.1	16.2
	1955	4.8	11.5	0.2	0.1	26.4	16.1	0.9	0.6	11.0	19.3
	1956	*4.7*	*10.4*	0.1	0.2	26.2	18.1	0.7	0.8	13.0	22.4
	1956 II	3.2	8.7	—	0.1	31.7	20.2	0.6	0.9	12.9	21.0
	III	4.8	10.6	0.2	0.2	24.0	17.6	1.0	0.8	14.3	24.3
	IV	*5.3*	*10.3*	—	0.2	26.7	17.4	0.5	0.6	12.8	23.8
	1957 I	...	*14.8*	—	0.2	31.3	21.4	0.2	0.6	14.6	29.4
	II	...	*13.7*	—	*0.1*	*21.6*	*19.5*	*0.4*	*1.0*	*13.5*	*29.5*
6. Eastern Europe	1948	—	0.1	...	...	0.5	0.2	...	...	1.0	0.8
	1951	—	0.1	...	...	0.4	0.9	—	—	—	1.5
	1952	0.1	0.1	...	...	0.8	0.6	—	—	—	0.1
	1953	—	0.2	...	...	0.2	0.6	—	—	—	1.0
	1954	0.2	0.6	...	...	0.1	0.6	—	—	—	1.0
	1955	5.6	0.5	—	—	—	—	—	—	—	0.8
	1956	*5.8*	*4.0*	—	—	—	—	—	—	—	0.8
	1956 II	9.1	3.7	—	—	—	—	—	—	0.1	0.7
	III	6.0	4.7	—	—	—	—	—	—	—	0.7
	IV	*1.3*	*3.5*	—	—	—	—	—	—	—	0.8
	1957 I	...	*3.7*	—	—	—	0.3	—	—	—	0.9
	II	...	6.9	—	—	0.5	*0.4*	—	—	—	*0.7*

6. DIRECTION OF INTERNATIONAL TRADE *(Cont'd)*

Quarterly averages or quarters — *Million dollars*

TRADE WITH	Year and Quarter	BURMA[b]		CAMBODIA		CEYLON		CHINA (Taiwan)		HONG KONG	
		Exports	Imports	Exports	Imports	Exports	Imports	Exports	Imports	Exports	Imports
7. North America	1948	0.6	1.7	...	...	16.0	6.4	...	...	11.1	26.7
	1951	0.2	0.9	...	...	14.8	5.3	1.5	12.4	7.8	20.2
	1952	0.6	2.6	...	...	12.2	9.9	1.1	6.8	5.8	13.1
	1953	1.1	1.8	...	...	10.8	3.6	1.4	19.4	4.3	12.5
	1954	0.3	2.1	...	...	10.2	2.6	1.3	25.3	5.0	14.8
	1955	0.3	1.4	2.6	0.6	14.4	3.2	1.4	24.6	6.4	16.3
	1956	*0.4*	*1.4*	2.4	1.5	12.6	3.0	1.7	20.6	7.8	20.6
	1956 II	0.5	1.4	1.8	2.0	11.3	3.3	1.7	21.7	7.2	22.9
	III	0.2	1.2	2.4	1.5	14.3	2.9	1.8	23.1	7.3	20.8
	IV	*0.3*	*1.7*	2.9	1.4	11.7	2.5	1.7	20.1	9.2	23.4
	1957 I	...	*3.5*	1.8	0.8	14.9	3.3	1.1	15.3	9.7	24.1
	II	...	*3.1*	*2.5*	*0.6*	*10.6*	*4.7*	*0.9*	*24.0*	*10.3*	*33.7*
8. United States of America	1948	0.6	1.6	...	...	12.6	5.7	...	...	10.6	24.4
	1951	0.2	0.8	...	...	10.5	4.3	1.5	12.4	7.1	16.3
	1952	0.6	2.5	...	...	8.3	7.8	1.1	6.8	5.0	9.6
	1953	1.1	1.8	...	...	6.4	2.7	1.4	19.4	3.3	9.9
	1954	0.3	2.1	...	...	6.2	1.9	1.3	25.3	4.1	12.4
	1955	0.3	1.3	2.6	0.6	9.3	2.4	1.4	24.6	5.2	14.3
	1956	*0.4*	*1.4*	2.4	1.5	7.4	2.1	1.7	20.4	6.5	18.6
	1956 II	0.5	1.4	1.8	2.0	6.4	1.7	1.7	21.7	6.3	21.1
	III	0.2	1.2	2.4	1.5	7.7	2.3	1.7	22.9	6.1	18.6
	IV	*0.3*	*1.7*	2.9	1.4	6.6	2.0	1.7	19.8	8.0	21.4
	1957 I	...	*3.5*	1.7	0.8	9.8	2.8	1.1	15.1	7.9	21.4
	II	...	*3.1*	*2.5*	*0.6*	*7.2*	*3.1*	*0.9*	*23.6*	*8.2*	*31.1*
9. Latin American Republics	1948	0.2	—	...	...	1.2	1.2	...	...	0.1	—
	1951	—	—	...	...	1.1	—	0.5	—	—	—
	1952	—	—	...	...	0.7	0.1	—	—	—	—
	1953	—	—	...	...	0.4	—	0.4	0.1	—	0.4
	1954	—	—	...	...	0.2	—	0.3	0.2	—	5.0
	1955	—	0.2	—	0.1	0.2	—	0.1	0.1	—	1.0
	1956	—	—	—	0.1	0.4	—	0.1	—	0.1	2.5
	1956 II	—	—	*0.1*	*0.2*	0.3	—	0.4	0.1	—	0.9
	III	—	—	—	—	0.7	—	—	—	0.2	6.3
	IV	—	—	—	—	0.3	—	0.1	—	—	1.1
	1957 I	—	—	0.1	—	0.2	—	—	—	—	1.3
	II	...	—	*0.1*	—	*0.3*	—	*0.1*	*0.1*	*0.3*	*1.0*
10. Oceania	1948	—	1.4	...	...	8.3	10.8	...	...	1.7	4.2
	1951	—	0.8	...	...	9.0	6.5	1.1	0.5	3.5	4.0
	1952	—	0.9	...	...	5.8	6.5	0.8	0.3	0.9	2.4
	1953	—	1.1	...	...	8.7	9.2	0.2	06	2.1	2.5
	1954	—	1.0	...	...	11.2	5.6	0.1	0.6	3.0	2.8
	1955	—	1.3	—	—	10.1	4.6	—	0.2	3.6	3.7
	1956	—	*1.6*	—	—	7.2	5.0	—	0.5	3.8	4.8
	1956 II	—	1.8	—	—	6.5	5.0	—	0.4	3.9	4.5
	III	—	1.2	—	—	8.2	4.0	0.1	0.1	4.5	4.3
	IV	—	*2.6*	—	—	6.6	8.2	—	1.2	3.4	6.0
	1957 I	—	*0.9*	—	—	8.9	7.7	—	0.2	3.2	6.5
	II	...	*3.2*	—	—	*6.3*	*5.4*	—	*0.2*	*5.2*	*5.1*
11. Sterling Area	1948	49.5	36.5	...	...	41.1	53.8	...	...	27.0	36.3
	1951	32.9	22.4	...	...	51.2	57.3	7.9	4.8	62.1	68.0
	1952	43.0	32.2	...	...	38.1	57.0	8.7	5.9	32.0	44.8
	1953	34.0	28.2	...	...	39.1	53.5	8.3	6.4	32.2	45.4
	1954	38.8	28.1	...	...	52.6	42.6	5.7	4.3	36.2	36.6
	1955	27.4	23.4	1.6	2.8	48.4	45.0	5.0	2.5	42.5	42.4
	1956	*29.1*	*19.6*	2.2	4.4	43.9	46.5	8.3	3.1	46.1	48.0
	1956 II	15.0	16.8	2.0	3.6	46.9	45.8	8.5	3.4	46.7	49.7
	III	37.0	19.5	2.8	5.5	44.9	43.5	8.6	3.1	47.6	46.0
	IV	*45.0*	*21.9*	2.6	3.3	45.0	50.2	7.5	3.3	47.5	47.8
	1957 I	...	*29.0*	3.6	2.6	50.4	55.5	18.1	8.1	48.9	58.8
	II	...	*31.8*	*4.8*	*6.2*	*36.8*	*50.0*	*10.3*	*3.1*	*47.4*	*56.2*
12. ECAFE Sterling Countries[a]	1948	43.9	13.8	...	...	4.4	24.2	...	...	17.2	10.5
	1951	28.5	13.0	...	...	5.0	25.2	7.0	3.5	44.6	32.3
	1952	33.8	20.2	...	...	4.8	23.2	7.1	4.5	24.8	18.0
	1953	26.1	14.9	...	...	3.1	19.6	5.5	3.7	20.1	18.5
	1954	31.9	14.4	...	...	6.0	18.5	4.8	2.4	19.4	14.3
	1955	21.4	10.6	1.4	2.7	4.8	21.6	3.7	1.6	20.6	16.2
	1956	*23.2*	*7.6*	2.1	4.2	4.1	20.8	6.7	1.8	21.6	16.7
	1956 II	11.4	6.3	2.0	3.5	2.7	18.2	7.4	2.1	22.2	20.6
	III	30.0	7.6	2.6	5.3	5.2	19.9	6.7	1.8	21.2	13.8
	IV	*38.9*	*8.9*	2.6	3.1	4.4	22.5	6.7	1.4	23.1	12.1
	1957 I	...	*13.2*	3.6	2.4	3.0	22.9	10.3	1.9	23.8	18.1
	II	...	*14.9*	*4.8*	*6.1*	*3.0*	*22.4*	*9.9*	*1.9*	*20.1*	*15.8*

GENERAL NOTES: (1) As complete breakdowns are not given, the sum of total trade of any individual country with different regions does not add up to the total given under trade with "all countries".

(2) See general note to table 5.

(3) Trade between Federation of Malaya and Singapore is excluded.

a. ECAFE countries comprise:
i) Sterling countries—Burma, Ceylon, Hong Kong, India, Federation of Malaya, Singapore, British Borneo and Pakistan.
ii) Non-sterling countries-Afghanistan Cambodia, China. Indonesia, Japan, Korea, Laos, Philippines, Thailand and Viet-Nam.

b. For 1948, year ending 30 September.

6. DIRECTION OF INTERNATIONAL TRADE *(Cont'd)*

Quarterly averages or quarters

Million dollars

TRADE WITH	Year and Quarter	INDIA[c,d]		INDONESIA[e]		JAPAN		KOREA, Southern		LAOS	
		Exports	Imports	Exports	Imports	Exports	Imports	Exports	Imports[f]	Exports	Imports
1. All countries	1948	342.8	507.4	98.7	116.2	64.6	170.6	...	...	...	...
	1951	411.4	448.2	322.9	218.3	338.6	498.8	2.8	17.4	...	...
	1952	324.9	423.8	233.6	237.0	318.2	507.0	6.9	41.4	...	...
	1953	279.0	300.2	210.0	191.2	318.7	602.4	9.9	66.9	...	...
	1954	295.6	323.8	214.0	157.3	407.3	599.8	6.1	55.1	...	...
	1955	318.0	340.2	232.8	151.0	502.7	617.9	4.5	63.6	0.5	4.7
	1956	312.8	427.2	220.5	213.3	623.8	807.4	6.1	...	*0.6*	*8.9*
	1956 II	276.4	404.1	216.0	228.1	599.6	807.4	7.7	108.2	0.7	8.2
	III	299.1	423.8	224.1	204.0	618.8	824.8	5.4	97.3	0.5	8.1
	IV	348.1	457.6	249.7	209.8	722.8	905.1	6.0	...	*0.6*	*10.2*
	1957 I	...	...	193.1	195.3	651.5	1,065.1	6.3	...	*0.5*	*8.4*
	II	...	...	*211.9*	*230.8*	*666.0*	*1,278.6*	...	...	*0.5*	*9.6*
2. ECAFE Countries[a] (including Japan)	1948	95.2	121.5	25.0	33.7	26.4	23.0	...	...	...	...
	1951	78.7	110.8	131.3	91.4	156.2	122.2	1.9	5.3	...	...
	1952	82.6	67.9	77.6	93.6	143.1	129.2	1.9	14.8	...	...
	1953	53.3	40.4	71.8	78.2	139.1	160.3	2.2	30.8	...	...
	1954	46.6	60.7	85.2	64.6	167.7	139.5	2.5	27.2	...	...
	1955	58.6	59.0	79.7	47.9	174.3	177.2	2.3	20.8	0.5	2.9
	1956	53.2	62.1	86.0	77.0	217.9	191.0	2.6	...	*0.6*	*5.5*
	1956 II	46.6	53.2	83.3	90.0	203.8	200.2	2.9	5.6	0.6	4.8
	III	47.8	63.6	87.4	74.2	212.5	184.3	2.7	3.2	0.6	4.8
	IV	53.2	68.4	104.3	50.8	253.8	189.0	2.6	...	*0.3*	*6.3*
	1957 I	...	...	76.3	84.1	242.0	221.6	4.1	...	*0.5*	*5.4*
	II	...	...	*93.2*	*71.6*	*235.7*	*254.9*	...	...	*0.1*	*4.8*
3. Japan	1948	3.4	4.8	2.4	18.0	—	—	...	...	...	...
	1951	9.6	11.8	10.2	38.2	—	—	1.7	3.7	...	...
	1952	13.4	10.2	6.2	31.9	—	—	1.4	12.4	...	...
	1953	14.2	6.5	9.4	31.8	—	—	1.5	26.7	...	...
	1954	8.6	8.8	12.5	34.2	—	—	1.8	17.2	...	...
	1955	13.6	16.3	17.3	21.6	—	—	1.8	9.9	—	0.4
	1956	15.7	22.9	19.2	33.4	—	—	4.0	...	—	*1.4*
	1956 II	14.7	22.5	19.1	42.1	—	—	1.7	2.9	—	1.0
	III	13.5	21.8	14.5	32.9	—	—	2.6	2.0	—	1.2
	IV	14.7	27.5	25.5	23.5	—	—	2.3	...	—	*1.5*
	1957 I	...	...	14.0	37.2	—	—	2.6	...	—	*2.2*
	II	...	...	*13.0*	*27.8*	—	—	...	...	—	*2.0*
4. Western Europe (including UK)	1948	106.8	159.5	43.6	41.7	6.8	4.9	...	...	...	...
	1951	147.8	133.8	112.2	70.6	35.4	40.1	—	0.4	...	...
	1952	98.9	128.7	74.2	83.5	44.1	34.4	—	2.9	...	...
	1953	102.7	127.8	74.2	65.2	28.9	50.8	0.1	4.2	...	...
	1954	122.2	144.2	71.6	52.0	36.9	49.2	0.1	4.4	...	...
	1955	125.8	156.2	77.7	58.8	48.0	49.6	0.3	7.9	—	1.5
	1956	130.4	218.1	80.8	75.3	62.0	57.6	0.8	...	...	*2.1*
	1956 II	103.9	221.6	77.0	81.5	58.5	62.0	1.0	3.9	—	2.4
	III	123.6	229.3	85.8	79.9	60.5	61.1	0.9	2.8	—	2.6
	IV	150.7	220.4	90.4	63.7	68.8	57.5	0.7	...	—	*1.2*
	1957 I	...	...	74.9	67.0	68.2	98.5	1.0	...	—	*1.7*
	II	...	...	*69.7*	*83.6*	*71.1*	*126.3*	...	...	—	*3.4*
5. United Kingdom	1948	74.2	115.6	2.0	10.8	4.2	1.3	...	...	...	...
	1951	103.9	78.6	20.1	14.0	13.5	8.0	—	0.1	...	...
	1952	66.4	79.8	6.4	17.0	18.3	9.2	—	—	...	...
	1953	78.5	74.2	4.4	13.5	8.3	12.2	0.1	0.6	...	...
	1954	93.1	79.2	9.8	8.5	12.8	9.3	0.1	1.5	...	...
	1955	87.9	83.9	23.1	8.7	15.2	9.5	—	1.2	—	0.1
	1956	96.7	109.1	19.6	12.9	15.8	16.6	0.2	...	—	*0.3*
	1956 II	77.6	109.6	20.3	16.0	19.4	16.2	0.3	0.4	—	0.3
	III	97.6	115.0	29.5	14.6	9.6	20.6	0.3	0.3	—	0.3
	IV	111.3	100.9	12.4	9.1	12.7	17.4	0.2	...	—	*0.4*
	1957 I	...	...	10.2	11.2	12.3	27.4	0.3	...	—	*0.3*
	II	...	...	*13.5*	*11.9*	*17.3*	*32.6*	...	...	—	*0.9*
6. Eastern Europe	1948	6.4	5.3	0.4	1.1	1.1	0.6	...	...	...	...
	1951	5.0	3.9	0.6	1.6	0.5	0.5	—	—	...	...
	1952	1.9	2.7	2.4	1.6	0.6	0.7	—	—	...	...
	1953	1.8	2.0	1.1	1.4	1.0	1.4	—	—	...	...
	1954	2.8	4.0	1.8	3.3	1.3	1.1	—	—	...	...
	1955	2.4	5.5	7.0	8.3	4.8	1.1	—	—	—	—
	1956	9.3	15.4	3.1	3.3	1.0	1.2	—	—	—	—
	1956 II	7.4	14.2	2.5	2.9	1.0	0.6	—	—	—	—
	III	8.1	14.3	1.3	3.8	0.8	1.1	—	—	—	—
	IV	16.7	19.5	1.3	2.5	1.1	2.0	—	—	—	—
	1957 I	...	...	1.1	1.7	1.1	1.3	—	—	—	—
	II	...	...	*1.6*	*3.6*	*1.6*	*1.4*	...	...	—	—

6. DIRECTION OF INTERNATIONAL TRADE *(Cont'd)*

Quarterly averages or quarters

Million dollars

TRADE WITH	Year and Quarter	INDIA[c,d]		INDONESIA[e]		JAPAN		KOREA, Southern		LAOS	
		Exports	Imports	Exports	Imports	Exports	Imports	Exports	Imports[f]	Exports	Imports
7. North America	1948	60.9	89.4	17.8	28.4	16.9	112.4	...	...	—	...
	1951	85.9	120.0	53.6	45.3	52.0	217.7	0.9	11.4	...	...
	1952	70.8	161.2	59.6	42.2	63.8	237.4	5.0	23.5	...	...
	1953	58.6	57.0	48.4	35.1	65.2	242.4	7.6	27.8	...	...
	1954	54.2	44.2	36.6	23.0	83.2	266.0	3.5	22.6	...	...
	1955	56.2	50.2	42.2	24.2	127.4	241.7	1.8	33.6	—	0.3
	1956	54.3	53.3	35.9	35.6	157.0	334.9	2.7	...	—	*0.9*
	1956 II	55.1	49.8	36.1	31.8	155.0	318.1	3.9	92.6	0.1	0.8
	III	53.9	52.4	35.8	33.8	166.9	330.0	1.7	84.2	—	0.8
	IV	53.8	58.2	38.6	51.5	175.3	421.8	2.6	...	—	*1.2*
	1957 I	...	...	24.8	30.0	138.6	480.1	1.2	...	—	*1.2*
	II	...	...	*28.0*	*43.3*	*149.3*	*543.2*	...	...	—	*1.8*
8. United States of America	1948	54.3	82.2	17.2	26.9	16.4	110.4	...	...	...	...
	1951	75.1	107.7	53.3	44.0	47.4	171.8	0.9	11.4	...	...
	1952	63.2	145.2	59.2	40.6	58.6	192.1	5.0	23.4	...	...
	1953	51.2	47.2	43.0	34.8	58.5	189.4	7.6	24.0	...	...
	1954	46.2	38.8	35.9	22.7	70.7	212.3	3.5	21.8	...	...
	1955	47.9	46.6	40.9	23.9	114.3	193.5	1.8	31.7	—	0.3
	1956	46.0	49.5	35.3	35.3	137.9	266.8	2.7	...	—	*0.9*
	1956 II	48.0	45.8	35.2	31.3	135.3	251.1	3.9	92.5	0.1	0.8
	III	43.9	48.8	35.2	33.7	149.2	264.1	1.7	84.0	—	0.8
	IV	46.2	53.6	38.3	51.3	151.9	329.4	2.6	...	—	*1.2*
	1957 I	...	...	24.5	29.6	122.5	419.8	1.2	...	—	*1.1*
	II	...	...	*27.7*	*43.1*	*132.3*	*488.9*	...	...	—	*1.7*
9. Latin American Republics	1948	24.0	12.6	0.1	0.7	0.4	20.9	...	...	...	...
	1951	24.5	2.8	1.3	1.3	22.3	64.8	—	0.1	...	...
	1952	14.2	0.7	1.1	7.1	12.5	42.0	—	—	...	...
	1953	16.1	1.5	0.4	0.2	26.1	66.2	—	0.5	...	...
	1954	12.2	4.8	1.4	—	50.3	77.2	—	0.3	...	...
	1955	12.2	3.6	6.6	0.1	44.8	60.7	—	0.8	—	—
	1956	8.6	1.3	0.6	2.1	41.0	87.3	—	...	—	—
	1956 II	4.4	1.9	0.7	6.8	41.1	80.7	—	0.2	—	—
	III	12.4	1.4	0.6	—	39.0	93.6	—	0.1	—	—
	IV	14.5	1.1	0.5	0.1	37.9	109.6	—	...	—	—
	1957 I	...	...	0.8	—	36.5	64.0	—	...	—	—
	II	...	...	*1.0*	—	*33.6*	*72.2*	...	...	—	—
10. Oceania	1948	18.0	20.9	1.2	8.5	1.1	2.1	...	...	...	...
	1951	28.8	10.6	9.8	2.7	25.4	36.7	—	0.1	...	...
	1952	14.4	8.7	7.3	3.3	9.7	37.9	—	0.1	...	...
	1953	10.2	14.5	6.0	4.4	3.6	50.2	—	3.4	...	...
	1954	14.6	8.7	8.6	3.2	8.8	34.0	—	0.6	...	...
	1955	16.7	11.2	6.2	3.1	17.2	50.8	—	0.5	—	—
	1956	14.8	7.3	9.4	4.6	10.9	71.6	—	...	—	—
	1956 II	14.1	7.9	11.0	6.2	11.2	71.4	—	—	—	0.1
	III	14.5	6.5	8.3	3.2	11.8	78.4	—	0.1	—	—
	IV	16.1	8.0	10.6	4.4	9.7	81.6	—	...	—	—
	1957 I	...	...	11.6	5.3	8.7	106.0	—	...	—	—
	II	...	...	*12.6*	*5.4*	*7.4*	*126.5*	...	...	—	—
11. Sterling Area	1948	191.6	264.4	24.4	29.7	17.4	15.3	...	...	...	...
	1951	218.0	182.2	147.6	61.9	153.1	111.6	0.2	1.7	...	...
	1952	168.2	155.6	79.9	69.2	134.8	125.1	0.4	1.4	...	...
	1953	146.9	145.1	67.8	63.0	79.0	150.6	0.8	7.4	...	...
	1954	167.7	162.5	84.3	45.2	122.8	108.4	0.7	10.6	...	...
	1955	164.6	158.0	84.4	41.1	160.2	147.2	0.5	11.3	—	0.4
	1956	164.1	172.4	84.1	61.0	171.2	204.4	0.7	...	*0.1*	*1.7*
	1956 II	138.1	168.3	83.6	63.3	170.9	212.3	1.4	1.6	0.3	1.8
	III	159.4	178.9	98.0	52.8	151.9	214.4	0.4	1.0	—	1.2
	IV	185.1	169.6	86.9	68.4	187.1	209.7	0.4	...	—	*1.6*
	1957 I	...	...	70.0	51.0	187.9	281.9	1.8	...	*0.2*	*1.8*
	II	...	...	*86.3*	*71.4*	*194.6*	*358.9*	...	...	—	*1.9*
12. ECAFE Sterling Countries[a]	1948	81.6	110.2	20.9	9.5	8.8	10.9	...	...	...	...
	1951	57.4	83.0	116.1	41.8	83.6	63.4	0.2	1.5	...	...
	1952	61.0	43.4	65.2	44.8	84.3	68.1	0.4	1.3	...	...
	1953	32.4	32.5	56.0	39.6	47.8	82.1	0.7	3.3	...	...
	1954	31.2	49.1	65.3	23.6	72.0	60.2	0.6	8.5	...	...
	1955	31.8	40.0	54.5	21.4	87.3	74.6	0.5	9.6	—	0.2
	1956	28.1	31.2	55.6	29.2	99.2	92.2	0.5	...	*0.1*	*1.3*
	1956 II	22.4	25.4	51.6	34.0	97.2	101.6	1.1	1.1	0.3	1.4
	III	26.2	31.9	60.0	27.3	84.3	90.9	0.1	0.6	—	0.9
	IV	29.8	32.2	66.9	18.7	109.4	85.3	0.2	...	—	*1.2*
	1957 I	...	...	48.4	27.9	120.0	113.5	1.4	...	*0.2*	*1.5*
	II	...	...	*59.1*	*31.3*	*110.9*	*129.2*	...	...	—	*1.0*

c. For 1948, year beginning 1 April.

d. For 1948, includes transit trade but excludes overland trade with Burma, Iran and Afghanistan.

e. Figures for trade with the Netherlands are as follows:—

	Exp.	*Imp.*
1951	66.6	26.0
1952	50.0	31.1
1953	48.4	22.4
1954	41.3	16.4
1955	36.7	17.7
1956	42.9	22.8

		Exp.	*Imp.*
1956	I	41.5	22.0
	II	41.2	24.2
	III	36.7	25.3
	IV	52.1	19.6
1957	I	50.1	19.4
	II	***48.8***	***21.8***

6. DIRECTION OF INTERNATIONAL TRADE *(Cont'd)*

Quarterly averages or quarters

Million dollars

TRADE WITH	Year and Quarter	MALAYA (Federation of)		PAKISTAN[c,g]		PHILIPPINES		SINGAPORE		THAILAND[f]		VIET-NAM[i]	
		Exports	Imports	Exports	Imports	Exports	Imports[h]	Exports	Imports	Exports	Imports	Exports	Imports
1. All countries	1948	72.5	57.7	154.6	101.4	79.4	146.5	130.8	152.9	51.4	30.0	...	...
	1951	161.6	92.4	190.9	133.7	102.4	122.5	334.7	296.1	117.2	62.5	...	...
	1952	102.6	82.0	133.1	152.4	88.0	105.8	217.5	234.4	101.2	77.3	...	...
	1953	75.2	73.1	109.7	87.5	101.0	114.2	171.3	191.4	87.1	75.8	...	...
	1954	76.2	66.1	89.7	81.2	101.3	120.7	177.8	190.3	72.6	67.2	...	...
	1955	112.3	78.1	100.2	72.3	98.8	139.0	227.2	234.0	90.2	74.4	17.2	65.8
	1956	117.0	186.2	*84.8*	*77.8*	109.2	126.6	223.2	253.1	83.8	91.4	10.5	52.7
	1956 II	107.9	84.0	72.3	66.7	116.0	132.1	213.5	254.3	77.5	89.7	5.3	48.3
	III	116.5	87.2	60.9	90.9	108.3	130.5	215.7	248.4	76.6	88.5	13.4	52.6
	IV	120.1	91.7	*77.2*	*87.3*	117.5	133.4	228.0	249.5	97.7	92.0	10.5	53.7
	1957 I	113.8	96.7	136.8	101.0	117.0	141.2	237.8	280.4	102.4	106.0	16.0	61.5
	II	107.7	85.9	*61.7*	*93.9*	*124.9*	*166.8*	219.4	263.8	*87.8*	*102.8*	*19.7*	*72.4*
2. ECAFE Countries[a] (including Japan)	1948	9.4	26.2	99.6	56.7	7.2	14.9	47.3	74.0	33.4	19.1	...	...
	1951	22.1	47.2	85.0	49.5	9.0	19.3	96.1	195.0	71.7	22.6	...	...
	1952	13.7	34.6	61.0	57.7	10.8	14.7	77.7	147.1	70.9	37.5	...	...
	1953	13.5	35.2	36.9	11.9	13.4	11.7	63.9	118.1	63.5	35.0	...	...
	1954	13.9	31.9	26.4	15.4	14.4	17.6	59.5	115.6	50.2	32.3	...	...
	1955	16.0	38.6	36.7	15.7	16.3	25.5	70.6	151.5	53.8	36.2	5.6	17.4
	1956	20.6	40.5	*30.0*	*11.2*	21.8	26.2	82.0	159.1	51.4	45.8	1.2	18.7
	1956 II	22.7	37.0	32.8	9.1	21.7	26.9	73.6	156.6	50.8	43.6	0.8	17.9
	III	22.5	41.1	25.8	8.9	24.5	25.5	77.4	150.8	47.9	41.3	1.3	15.6
	IV	23.1	45.5	*23.7*	*11.4*	26.6	29.8	84.8	160.7	59.7	51.5	1.7	22.9
	1957 I	25.9	44.8	40.7	15.1	22.3	29.4	97.4	175.0	60.2	50.7	1.1	20.4
	II	29.3	39.1	*24.3*	*18.4*	*29.8*	*38.7*	89.5	159.8	*57.1*	*45.1*	*4.7*	*25.5*
3. Japan	1948	1.1	—	0.9	0.7	3.9	0.5	1.2	1.5	—	1.3	...	...
	1951	4.0	2.9	19.2	19.5	7.5	8.2	8.9	17.0	13.2	11.3	...	...
	1952	4.3	3.4	22.0	27.9	9.6	4.6	8.4	16.9	15.6	9.1	...	...
	1953	5.0	1.9	21.4	4.5	12.0	5.1	7.9	8.6	21.2	13.1	...	...
	1954	5.3	2.2	7.8	8.7	12.6	7.3	8.2	9.8	17.3	16.3	...	...
	1955	7.3	3.6	11.6	10.2	14.8	10.8	16.2	15.9	15.8	15.8	0.4	8.8
	1956	9.8	3.8	*10.7*	*5.4*	19.2	12.8	17.6	17.2	7.8	15.2	0.1	13.3
	1956 II	10.5	4.0	11.1	3.6	18.4	13.0	15.1	19.6	11.6	8.8	—	13.1
	III	11.6	3.6	9.7	2.7	22.0	13.2	17.0	14.3	10.9	17.5	—	11.1
	IV	10.3	3.8	*8.3*	*3.8*	23.3	13.5	18.7	16.4	5.2	21.9	0.3	16.0
	1957 I	10.8	3.8	22.4	4.4	18.5	13.9	22.8	19.9	6.9	24.4	—	14.4
	II	18.5	3.2	*6.6*	*3.0*	*24.4*	*21.1*	20.6	18.7	*13.8*	*21.7*	*2.3*	*16.7*
4. Western Europe (including UK)	1948	24.2	18.2	33.4	26.6	13.2	4.8	34.3	38.5	3.6	5.5	...	...
	1951	86.4	36.2	77.3	47.4	22.1	7.0	99.2	63.9	8.3	18.2	...	...
	1952	56.8	37.5	49.2	52.5	13.1	5.9	63.9	53.2	3.7	23.2	...	...
	1953	36.8	28.3	53.6	25.4	13.8	5.8	44.4	44.3	3.3	24.7	...	...
	1954	37.2	27.2	43.4	39.2	20.2	10.7	52.2	45.1	6.4	22.6	...	...
	1955	58.3	31.4	42.1	31.2	17.6	12.4	78.3	50.8	7.4	24.2	5.9	35.2
	1956	54.8	36.4	*38.4*	*30.0*	22.6	16.1	73.5	55.9	8.1	28.4	7.2	17.5
	1956 II	45.5	36.3	25.0	25.3	24.0	17.9	69.5	55.9	8.3	28.8	4.3	13.7
	III	52.6	38.4	22.1	30.3	23.6	17.3	69.8	59.5	8.4	29.0	9.6	20.9
	IV	56.6	35.9	*39.8*	*33.1*	24.0	15.5	75.6	52.2	7.0	24.6	6.1	12.5
	1957 I	53.4	41.0	67.8	41.5	22.5	19.6	64.5	64.6	12.5	35.7	10.8	21.0
	II	40.5	36.6	*20.9*	*42.6*	*25.4*	*24.2*	55.5	64.0	*7.1*	*37.4*	*5.3*	*21.4*
5. United Kingdom	1948	12.2	15.7	13.4	20.4	0.8	1.3	16.1	24.9	1.2	2.8	...	...
	1951	49.8	27.4	23.9	27.6	3.2	1.6	49.5	37.0	2.1	8.0	...	...
	1952	34.7	30.8	17.0	30.9	1.4	1.2	32.9	36.2	0.7	10.1	...	...
	1953	18.5	23.1	21.1	14.4	1.3	1.1	21.1	31.0	0.6	10.0	...	...
	1954	14.9	21.3	17.4	23.2	1.2	2.3	22.1	27.8	1.8	8.1	...	...
	1955	26.5	24.1	15.2	17.6	1.4	3.2	35.8	32.3	1.8	8.6	0.4	1.1
	1956	23.2	27.2	*13.4*	*14.8*	1.7	3.8	33.0	34.7	2.6	10.6	0.1	0.9
	1956 II	15.2	26.6	8.6	12.7	2.3	4.3	28.0	34.2	2.5	10.1	—	0.5
	III	24.5	27.6	8.7	16.3	1.8	3.9	33.3	35.8	3.2	10.9	0.3	1.0
	IV	20.9	27.3	*15.2*	*16.4*	1.3	3.8	30.9	32.8	1.9	9.8	—	0.7
	1957 I	21.2	28.5	25.1	21.8	2.0	3.8	26.5	39.0	4.1	12.6	—	1.1
	II	17.7	26.0	*6.0*	*20.9*	*1.7*	*6.5*	23.6	38.2	*2.5*	*11.1*	*0.1*	*1.1*
6. Eastern Europe	1948	6.1	0.9	6.2	1.1	2.0	0.1	8.5	0.7	—	0.3	—	...
	1951	6.2	0.2	8.1	2.2	—	—	11.0	1.3	—	0.1	...	...
	1952	3.0	0.2	9.0	1.8	—	0.1	5.3	0.7	—	0.1	...	...
	1953	1.5	0.2	3.2	0.4	—	—	2.8	1.4	—	0.1	...	...
	1954	1.9	0.2	2.0	0.7	—	0.1	2.1	0.9	—	—	...	...
	1955	2.1	0.2	1.8	0.4	—	—	2.7	0.8	—	—	—	—
	1956	4.7	0.3	*1.3*	*0.4*	—	—	6.3	1.0	—	0.5	—	0.1
	1956 II	6.7	0.3	1.6	0.3	—	—	6.8	1.5	—	0.5	—	—
	III	4.0	0.4	*1.2*	*0.4*	—	—	7.5	0.8	—	0.6	—	0.1
	IV	2.8	0.2	*0.9*	*0.4*	—	0.1	6.1	0.7	—	0.4	—	—
	1957 I	5.0	0.4	3.7	0.5	—	—	7.6	1.1	—	0.7	—	—
	II	4.3	0.4	*1.5*	*1.1*	—	—	11.0	1.3	—	*0.6*	—	—

6. DIRECTION OF INTERNATIONAL TRADE *(Cont'd)*

Quarterly averages or quarters

Million dollars

TRADE WITH	Year and Quarter	MALAYA (Federation of)		PAKISTAN[c,g]		PHILIPPINES		SINGAPORE		THAILAND[f]		VIET-NAM[i]	
		Exports	Imports	Exports	Imports	Exports	Imports[h]	Exports	Imports	Exports	Imports	Exports	Imports
7. North America	1948	30.9	4.8	12.4	6.6	53.8	120.2	29.1	23.6	13.1	4.2	...	...
	1951	38.4	3.0	8.3	8.0	72.1	91.1	74.6	17.9	35.3	13.0	...	...
	1952	26.0	3.2	5.6	10.1	60.2	80.8	34.1	14.8	24.8	15.0	...	...
	1953	21.0	2.2	7.4	4.2	69.6	90.6	24.1	10.3	17.7	14.6	...	...
	1954	18.7	1.5	6.1	6.2	62.4	85.4	25.3	11.9	13.8	11.1	...	...
	1955	29.7	1.7	7.9	8.6	59.3	93.6	37.9	11.8	26.4	13.1	4.0	8.0
	1956	31.7	2.1	*8.3*	*6.7*	59.5	79.2	28.0	15.1	21.0	14.6	2.0	15.0
	1956 II	27.7	2.6	7.4	3.4	64.4	83.2	22.2	17.8	16.8	14.6	0.3	13.7
	III	33.1	1.9	6.2	9.0	53.3	80.9	27.1	14.0	17.0	14.7	2.5	15.4
	IV	33.1	1.8	*8.1*	*8.3*	62.4	83.6	31.5	13.2	24.7	14.3	2.6	17.4
	1957 I	24.1	2.4	14.3	35.1	68.8	86.3	30.9	13.4	21.9	16.8	3.3	19.0
	II	26.7	2.4	*8.8*	*27.5*	*64.6*	*96.3*	26.4	12.1	*15.2*	*16.7*	*3.2*	*17.7*
8. United States of America	1948	27.1	3.1	12.0	6.0	52.4	117.7	26.7	21.5	13.1	4.1	...	...
	1951	32.9	2.3	7.9	7.6	70.9	87.6	64.6	15.5	34.4	12.4	...	...
	1952	23.9	12.6	5.6	9.1	59.5	77.1	29.7	12.4	24.6	14.4	...	...
	1953	19.0	2.0	7.2	4.1	69.0	87.8	20.2	9.5	17.5	14.2	...	...
	1954	16.4	1.3	6.0	5.2	61.6	81.6	21.2	10.9	13.6	10.6	...	...
	1955	26.7	1.5	7.7	8.0	59.0	89.0	32.4	10.7	26.0	12.5	4.0	7.9
	1956	28.2	1.8	*7.9*	*6.6*	59.1	75.1	23.2	13.5	20.8	14.2	2.0	14.9
	1956 II	25.1	2.2	6.9	3.3	64.0	78.7	18.1	16.2	16.7	14.3	0.3	13.7
	III	28.8	1.6	5.9	8.8	53.0	76.2	22.5	12.2	16.9	14.3	2.5	15.3
	IV	29.8	1.6	*7.8*	*8.1*	61.7	79.7	25.3	11.9	24.6	13.8	2.6	17.4
	1957 I	21.2	2.0	14.1	25.7	67.8	81.5	25.6	12.0	21.9	16.1	3.3	19.0
	II	23.9	2.1	*8.7*	*26.5*	*64.0*	*92.4*	22.4	10.8	*15.0*	*16.1*	*3.2*	*17.7*
9. Latin American Republics	1948	0.8	0.4	1.8	0.2	1.3	3.6	0.9	0.8	0.2	—	...	...
	1951	4.2	—	—	—	2.0	1.1	12.1	0.3	0.5	—	...	...
	1952	1.4	—	—	—	1.6	0.4	3.4	0.3	—	—	...	...
	1953	1.4	—	0.5	—	2.8	0.2	3.7	0.1	—	—	...	...
	1954	1.8	—	0.9	—	3.0	0.7	4.9	0.2	—	—	...	...
	1955	2.6	—	1.6	—	3.5	0.6	8.1	0.2	0.2	—	—	—
	1956	1.7	0.1	*0.9*	—	3.7	1.2	4.9	0.4	0.2	—	—	0.4
	1956 II	1.3	0.1	0.9	—	4.1	1.4	7.1	0.3	—	0.1	—	—
	III	1.6	0.1	0.9	—	4.5	0.5	5.8	0.5	0.5	—	—	0.8
	IV	1.9	0.1	*1.0*	—	3.8	1.4	5.5	0.4	0.1	—	—	0.2
	1957 I	2.7	0.1	2.0	1.8	1.8	0.7	6.1	0.4	—	—	—	0.3
	II	3.5	0.1	*0.7*	*1.4*	*3.0*	*1.2*	10.6	0.1	—	—	—	—
10. Oceania	1948	0.6	3.6	0.5	0.3	0.2	1.8	6.8	7.6	—	—	...	...
	1951	2.9	4.4	2.2	0.3	1.4	0.2	25.2	7.6	0.1	0.6	...	...
	1952	0.5	5.1	1.0	0.6	0.2	0.4	15.4	8.6	0.1	0.6	...	...
	1953	0.8	6.6	1.4	0.5	0.2	0.3	15.5	7.4	—	1.0	...	...
	1954	1.5	4.3	1.6	0.5	0.2	0.8	15.3	7.2	—	0.6	...	...
	1955	1.9	4.5	1.4	0.6	0.2	1.3	17.4	7.8	0.1	0.8	—	0.2
	1956	1.6	4.9	*0.7*	*0.6*	0.3	1.4	19.8	9.1	0.1	0.9	—	0.1
	1956 II	1.8	6.4	0.8	0.7	0.2	1.2	16.9	9.7	0.2	1.1	—	0.2
	III	1.3	3.8	0.6	0.5	0.4	1.7	17.7	8.6	0.1	1.0	—	0.2
	IV	1.3	5.7	*0.5*	*0.5*	0.4	2.2	15.0	9.2	—	0.8	—	0.1
	1957 I	1.2	6.2	0.9	3.0	0.5	2.3	17.5	10.2	0.2	1.1	—	—
	II	1.6	5.3	*0.2*	*1.0*	*0.1*	*3.4*	17.4	10.1	*0.1*	*1.0*	—	—
11. Sterling Area	1948	18.2	32.8	110.4	72.6	2.4	5.4	40.7	56.6	28.4	20.0	...	...
	1951	64.3	42.5	81.8	54.9	5.2	7.6	117.4	96.7	50.2	25.7	...	...
	1952	40.6	45.5	36.8	61.7	2.8	7.5	75.4	85.7	43.5	35.7	...	...
	1953	24.5	39.3	37.0	23.4	2.3	6.0	67.3	71.8	39.9	30.3	...	...
	1954	22.7	24.5	33.6	32.6	2.4	10.2	70.1	69.6	32.1	22.5	...	...
	1955	34.9	38.6	38.5	25.9	2.6	12.1	85.3	79.1	35.4	26.6	2.4	3.5
	1956	32.7	42.8	*30.7*	*20.6*	3.8	12.4	84.8	87.3	39.0	39.1	0.6	2.3
	1956 II	26.3	41.9	23.2	19.3	5.0	11.9	79.2	87.1	36.3	42.7	0.3	1.7
	III	34.0	41.2	23.0	22.2	4.5	12.4	83.4	87.4	36.3	33.2	0.7	2.1
	IV	29.1	46.4	*25.8*	*22.2*	3.3	14.4	82.9	85.9	48.9	35.9	0.8	2.2
	1957 I	32.5	43.7	45.4	33.9	4.3	15.6	84.7	92.7	48.3	36.4	0.8	2.3
	II	27.2	40.5	*24.5*	*30.0*	*4.6*	*18.7*	80.2	79.0	*35.6*	*32.2*	*0.6*	*1.7*
12. ECAFE Sterling Countries[a]	1948	4.9	10.8	96.2	50.8	1.4	2.2	17.5	21.4	26.3	16.4	...	...
	1951	11.3	10.1	54.4	25.8	0.8	4.8	34.4	48.5	46.2	9.1	...	...
	1952	4.8	9.0	18.0	29.2	0.6	5.8	23.8	37.1	41.2	24.7	...	...
	1953	4.8	9.3	13.2	6.6	0.6	4.5	26.0	29.0	37.8	19.1	...	...
	1954	5.4	6.7	11.6	6.3	0.7	6.7	27.2	21.2	28.0	13.6	...	...
	1955	4.9	8.7	16.9	5.5	0.7	7.3	25.5	31.7	31.6	17.0	1.9	2.3
	1956	6.1	9.1	*13.8*	*4.6*	1.6	7.1	29.1	34.6	34.5	26.6	0.5	1.2
	1956 II	7.6	7.3	10.6	4.2	2.3	6.5	22.5	32.6	32.7	30.4	0.3	1.0
	III	6.9	8.6	11.1	4.7	2.1	6.7	27.6	33.4	31.0	19.9	0.4	0.9
	IV	5.6	11.0	*12.8*	*5.5*	1.5	8.4	32.9	36.5	44.0	25.0	0.8	0.9
	1957 I	9.5	7.6	13.3	7.6	2.0	9.3	34.1	34.0	40.1	22.4	0.8	1.2
	II	5.1	7.5	*14.2*	*7.6*	*2.5*	*8.6*	33.5	30.4	*30.0*	*18.9*	*0.6*	*0.6*

f. Figures prior to 1956 are derived from trade returns of partner countries. Totals for geographical and currency areas may not be complete.

g. Beginning 1951, includes overland trade.

h. Imports valued f.o.b.

i. See Table 5, footnote g.

7. VALUE OF IMPORTS BY PRINCIPAL COMMODITY GROUPS

Monthly averages or calendar months — *Millions*

	1951	1952	1953	1954	1955	1956	1956 II	1956 III	1956 IV	1957 I	1957 II	1957 Jul	1957 Aug
BURMA (*kyat*)													
Food	5.5	9.1	9.4	10.3	8.0	6.8	7.2	6.7	8.9	*9.3*	*12.7*	...	...
Chemicals	3.4	3.9	4.1	4.6	5.4	7.1	5.2	7.4	9.0	*10.9*	*10.2*	...	...
Textiles	21.3	30.6	24.0	24.1	16.6	22.4	26.6	16.8	29.8	*30.5*	*42.5*	...	...
Base metals and manufactures	3.1	3.1	7.3	9.4	8.4	6.9	6.2	8.5	8.1	*9.3*	*14.1*	...	...
Machinery	2.7	4.7	5.8	7.8	7.3	10.1	9.8	9.3	8.2	*9.3*	*10.0*	...	...
Transport equipment	1.2	2.2	2.0	4.6	5.7	6.3	5.4	5.2	8.8	*8.2*	*9.0*	...	...
Other manufactured goods	9.1	11.6	9.2	11.2	9.3	9.7	10.4	9.0	10.0	*12.7*	*14.8*	...	...
CAMBODIA (*riel*)													
Food	...	...	11.2	10.0	14.0	14.8	18.7	13.3	13.8	7.5	17.2	25.6	...
Beverages and tobacco	...	...	22.4	22.8	9.0	5.2	5.9	4.4	3.5	5.3	5.7	5.8	...
Mineral fuels	...	...	9.8	13.6	11.8	9.9	12.3	9.2	10.1	7.7	3.2	8.9	...
Textiles	...	...	24.5	26.9	27.8	33.4	22.0	33.7	43.5	13.0	26.3	24.9	...
Machinery	...	...	4.3	5.6	11.3	16.1	17.4	15.9	15.9	14.3	13.0	8.4	...
Transport equipment	...	...	11.8	10.2	10.8	15.1	13.5	18.1	11.4	8.8	*8.6*	*7.9*	...
Base metals and manufactures	...	...	7.8	10.1	13.1	13.6	15.4	14.9	11.0	11.6	15.4	16.6	...
CEYLON (*rupee*)[a]													
Food	56.6	63.9	64.6	53.8	50.3	56.7	46.4	60.1	71.9	55.1	63.8	52.2	97.1
Cereals and cereal preparations	32.3	40.5	43.4	33.0	26.1	28.3	23.9	27.7	39.3	26.9	33.0	16.8	52.5
Mineral fuels, lubricants and related materials	10.6	12.7	12.1	9.9	12.0	10.6	9.6	12.3	7.8	19.3	15.0	22.2	28.5
Chemicals	6.2	5.1	5.4	6.1	7.6	8.2	8.6	8.0	7.4	12.7	11.3	9.0	7.3
Textiles	17.5	17.2	13.5	12.2	11.3	13.4	12.6	13.4	15.3	16.4	13.5	14.1	11.7
Machinery	6.7	7.8	7.7	5.7	7.1	8.7	8.9	9.1	9.6	9.5	12.0	8.5	7.5
Transport equipment	6.6	8.2	7.0	4.8	5.9	6.9	7.6	7.1	5.5	8.4	8.1	6.8	6.3
Other manufactured goods	21.3	21.7	19.3	20.0	21.8	25.1	26.3	24.0	26.2	26.9	27.0	25.6	25.7
CHINA (Taiwan, *NT dollar*)													
Food	16.2	30.6	35.3	43.7	26.6	42.2	42.4	37.9	52.6	27.7	21.6	65.8	7.8
Crude materials, inedible, except fuels	15.2	24.7	52.2	66.9	63.5	92.1	104.2	107.2	76.1	86.2	131.1	121.7	87.7
Oil-seeds, oil nuts and oil kernels	11.9	11.6	15.6	17.5	19.0	23.3	21.2	27.8	18.6	19.0	30.1	17.4	—
Textile fibres, raw	1.1	2.3	25.7	31.8	31.8	37.1	55.2	37.7	28.1	31.7	58.6	73.3	63.4
Mineral fuels, lubricants and related materials	9.2	9.4	10.9	9.3	21.3	26.2	36.3	13.1	36.0	49.1	23.6	5.3	116.2
Chemicals	24.2	48.8	33.3	47.6	44.8	75.7	75.1	51.7	84.0	84.2	55.2	36.5	119.7
Textiles	21.0	25.5	15.4	6.4	4.4	3.9	3.5	2.5	3.6	2.0	2.9	2.0	0.9
Base metals and manufactures	12.7	20.5	23.1	29.0	25.9	45.7	52.9	44.2	43.2	32.2	51.0	56.5	67.2
Machinery	12.9	19.5	25.3	33.5	43.8	60.6	52.9	65.3	78.5	46.9	53.3	54.8	89.3
Transport equipment	5.4	6.4	11.1	8.6	8.0	14.2	15.6	10.7	22.8	10.9	23.5	13.7	11.7
Other manufactured goods	3.0	18.0	34.8	20.0	16.9	26.7	33.0	27.1	22.3	21.0	33.1	58.3	34.1
INDIA (*rupee*)[a]													
Food	184.3	193.2	94.3	81.7	89.2	39.8	28.9	34.9	37.2	62.6	41.7	...	...
Crude materials, inedible, except fuels	193.6	133.7	74.9	72.7	94.2	99.6	101.5	85.7	90.5	106.1	110.9	...	...
Cotton raw and waste	94.7	97.4	41.5	47.9	44.6	44.7	53.2	27.9	36.4	54.2	51.7	...	...
Petroleum and products	54.0	65.8	66.0	72.5	78.3	90.4	35.1	89.6	96.5	58.5	107.0	...	...
Chemicals	44.5	35.8	33.5	41.9	44.0	49.0	51.4	45.7	49.5	58.9	72.5	...	...
Base metals and manufactures	35.9	43.5	38.6	45.3	69.0	131.2	144.7	148.3	155.0	177.9	214.2	...	...
Machinery	72.1	86.5	65.8	75.7	76.9	127.5	126.7	134.2	130.9	164.5	169.6	...	...
Transport equipment	42.9	41.0	22.2	31.7	56.2	64.4	60.6	61.8	71.2	64.5	56.6	...	...
Other manufactured goods	80.1	56.8	49.3	55.8	68.2	90.8	81.4	139.6	27.5	70.5	70.4	...	...
INDONESIA (*rupiah*)													
Live animals, food products, beverages and tobacco	52.5	215.1	131.9	96.0	63.3	176.1	165.1	126.4	218.3	117.9	152.0	*133.6*	...
Chemicals and allied products	17.5	46.0	40.9	37.0	53.6	55.8	67.1	48.5	41.3	59.7	71.9	*61.9*	...
Textiles, apparel and footware	91.0	219.1	212.9	173.8	175.0	202.0	251.6	218.0	120.7	212.4	170.4	*143.6*	...
Base metals and manufactures	29.3	94.6	67.9	63.1	70.4	79.3	81.0	84.1	69.9	111.6	130.1	*135.1*	...
Machinery and transport equipment	37.2	162.7	136.3	115.7	102.4	144.6	163.2	157.7	123.3	125.3	148.9	*163.9*	...
JAPAN (*1,000 Mn yen*)													
Food	14.86	17.86	18.12	19.30	18.34	16.47	16.90	15.74	17.10	13.35	20.10	*19.08*	*17.04*
Cereals and cereal preparations	10.90	12.98	12.98	14.66	13.20	11.08	12.06	10.98	11.15	6.81	12.39	*8.45*	*6.16*
Sugar and sugar preparations	2.91	3.53	3.79	3.39	3.64	4.02	3.55	3.69	3.93	4.33	5.16	*6.06*	*6.15*
Crude materials, inedible, except fuels	36.40	3.17	34.63	33.78	36.77	51.31	52.21	54.37	57.13	67.80	73.50	*60.82*	*54.31*
Oil-seeds, oil nuts & oil kernels	2.58	1.16	2.41	2.91	4.41	4.01	3.63	4.73	2.80	4.92	4.64	...	...
Crude rubber	2.52	1.48	1.51	1.30	2.24	2.66	2.60	2.53	3.04	3.34	3.34	*2.55*	*2.47*
Textile fibres, raw	22.51	17.91	19.98	18.54	17.57	23.16	25.48	24.69	23.07	28.90	28.97	*20.07*	*18.32*
Metal ores and scrap	2.83	4.36	5.20	5.13	5.57	13.70	13.34	13.79	19.47	22.32	26.73	*22.75*	*21.52*

EXTERNAL TRADE

7. VALUE OF IMPORTS BY PRINCIPAL COMMODITY GROUPS *(Cont'd)*

Monthly averages or calendar months

Millions

	1951	1952	1953	1954	1955	1956	1956 II	1956 III	1956 IV	1957 I	1957 II	1957 Jul	1957 Aug
JAPAN *(1,000 Mn yen)* *(Cont'd)*													
Mineral fuels, lubricants and related materials	4.80	7.02	8.66	8.02	8.67	12.38	11.67	12.25	14.03	18.51	22.98	*20.36*	*21.70*
Chemicals	1.10	1.33	2.08	1.92	2.41	4.90	5.18	5.13	5.36	5.66	6.75	*5.52*	*5.13*
Machinery	1.72	2.72	2.79	3.77	3.29	3.93	4.13	3.72	3.79	5.32	7.19	*9.68*	*7.45*
Transport equipment	1.24	1.28	2.03	1.55	0.68	0.92	1.02	0.95	1.00	1.08	1.86	*0.70*	*1.80*
Other manufactured goods	1.75	1.74	2.68	2.54	2.41	5.68	4.58	5.44	9.15	14.58	19.55	*23.13*	*22.71*
KOREA (southern, *hwan*)													
Food	3	258	821	276	555	452	447	505	422	221	1,170	1,310	1,751
Cereals and cereal preparations	—	230	697	122	78	65	29	72	21	137	730	937	1,017
Beverages and tobacco	1	24	67	126	188	220	287	261	168	203	266	251	287
Crude materials, inedible, except fuels	22	22	103	106	115	120	169	92	54	86	194	108	181
Chemicals	20	114	306	351	693	370	453	207	223	375	258	219	197
Textiles	27	67	229	604	1,273	663	547	428	840	357	209	150	180
Machinery & transport equipment	3	15	63	316	328	334	373	419	245	215	366	392	412
Other manufactured goods	22	71	223	461	862	711	697	706	716	620	780	513	551
LAOS (*Kip*)													
Food	...	...	...	...	15.2	18.0	15.8	19.5	24.2	12.2	15.8	...	...
Cereals and cereal preparations	...	...	...	...	7.4	10.5	7.6	11.6	15.3	4.6	4.8	...	...
Petroleum products	...	...	...	...	2.3	4.0	3.2	5.2	6.0	2.6	3.3	...	...
Chemicals	...	...	...	...	2.9	5.6	7.4	5.6	4.8	5.4	5.0	...	...
Textiles	...	...	...	...	9.1	23.0	19.5	14.8	21.4	29.9	14.7	...	...
Machinery	...	...	...	...	3.9	6.9	8.2	6.9	5.1	7.8	8.2	...	...
Transport equipment	...	...	...	...	3.5	12.0	9.3	13.7	16.7	10.1	27.7	...	...
Other manufactured goods	...	...	...	...	11.5	24.6	28.6	18.6	23.3	19.4	24.4	...	...
MALAYA (Federation of)[a] (*Malayan dollar*)													
Food	24.5	26.2	28.2	20.2	24.8	27.4	27.0	25.8	31.0	30.0	25.5	25.2	...
Cereals and cereal preparations	10.9	10.9	14.1	7.1	10.2	11.0	9.9	9.4	14.7	13.3	8.9	10.2	...
Crude materials, inedible, except fuels	22.8	8.6	6.3	8.8	10.7	12.1	10.9	12.5	14.0	12.6	10.8	13.3	...
Metal ores and scrap	5.5	3.8	3.0	3.9	5.3	5.7	5.6	5.3	7.5	6.6	5.6	7.0	...
Mineral fuels, lubricants and related materials	5.4	6.0	6.3	6.9	7.7	6.4	6.2	7.8	5.9	8.1	8.0	3.0	...
Textiles	6.5	4.7	2.9	3.0	3.5	3.4	3.5	3.0	3.6	3.7	3.4	2.9	...
Machinery	5.7	7.3	6.6	6.1	5.6	7.1	7.3	6.9	7.0	8.0	7.3	7.8	...
Transport equipment	5.1	6.0	3.4	2.3	3.1	4.3	4.4	3.7	4.2	4.6	3.2	3.4	...
Other manufactured goods	16.7	16.6	12.3	11.6	14.5	16.1	16.5	16.9	16.2	19.1	17.3	16.9	...
NORTH BORNEO (*Malayan dollar*)													
Food	*1.81*	*1.71*	*1.51*	1.46	1.89	2.54	2.37	2.89	2.89	2.4	2.2	...	...
Mineral fuels, lubricants and related materials	...	...	...	0.48	0.44	0.51	0.68	0.59	0.40	0.6	0.5	...	...
Chemicals	...	...	...	0.24	0.32	0.41	0.41	0.44	0.41	0.5	0.5	...	...
Textiles	*0.78*	*0.39*	*0.38*	0.46	0.53	0.69	0.67	0.77	0.88	0.6	0.6	...	...
Machinery	0.22	0.48	0.70	0.70	0.57	0.68	0.65	0.82	0.53	1.0	0.9	...	...
Transport equipment	0.28	0.26	0.16	0.25	0.24	0.51	0.65	0.30	0.69	0.7	0.4	...	...
Other manufactured goods	...	...	...	1.17	1.59	2.01	1.88	2.25	2.40	2.0	2.2	...	...
PAKISTAN (*rupee*)													
Mineral oils	6.1	8.5	8.3	8.3	9.5	8.3[r]	7.8	8.3	10.2	8.3	6.6	...	...
Cotton piecegoods	27.5	23.0	1.2	2.5	2.2	4.4	3.1	0.8	0.4	2.0	0.4	...	...
Cotton twist and yarn	18.0	16.3	4.0	4.0	0.9	1.1	1.1	0.6	0.4	1.0	0.4	...	...
Machinery	11.6	14.6	10.0	22.9	20.8	26.3[r]	12.2	15.2	16.7	26.2	29.2	...	...
Transport equipment	5.6	7.0	2.1	3.7	4.1	7.7[r]	6.1	5.2	7.5	10.2	7.2	...	...
Iron and steel manufactures	7.2	14.0	4.9	5.6	8.1	15.5	7.9	9.0	11.2	16.3	20.0	...	...
PHILIPPINES (*peso*)[b]													
Food	16.6	12.8	12.8	13.2	17.1	14.7	14.5	16.3	16.1	19.3	15.7	16.4	16.1
Cereals and cereal preparations	6.5	5.8	3.6	4.3	6.2	4.4	5.3	5.7	3.8	6.6	5.3	3.9	5.6
Mineral fuels, lubricants and related materials	6.9	7.0	8.1	9.0	9.0	8.7	8.3	8.9	9.3	8.8	10.4	9.7	8.2
Chemicals	6.2	5.4	6.4	6.4	7.3	6.5	6.9	6.6	7.5	9.0	9.8	8.4	8.2
Textiles	15.7	13.1	13.2	14.3	14.2	9.9	10.0	10.0	12.3	12.0	15.5	12.3	9.7
Machinery	6.1	7.1	9.0	10.3	12.4	16.1	17.0	17.5	15.6	15.1	21.0	22.9	17.3
Transport equipment	3.0	3.6	3.6	4.2	5.0	4.8	6.2	4.6	4.6	4.2	5.8	8.6	7.0
Other manufactured goods	20.4	17.2	19.1	19.8	21.7	20.1	21.7	20.7	20.0	22.0	29.3	31.1	24.4

7. VALUE OF IMPORTS BY PRINCIPAL COMMODITY GROUPS *(Cont'd)*

Monthly averages or calendar months — *Millions*

	1951	1952	1953	1954	1955	1956	1956 II	1956 III	1956 IV	1957 I	1957 II	1957 Jul	1957 Aug
SARAWAK (*Malayan dollar*)													
Food	4.29	4.02	3.64	3.85	4.32	4.36	4.08[e]	4.63		4.3		...	...
Mineral fuels, lubricants and related materials	22.23	22.95	22.44	22.40	24.93	26.80	26.50	27.09		26.7		...	...
Chemicals	0.24	0.23	0.53	0.70	0.82	0.79	0.67	0.92		0.7		...	...
Textiles	...	...	...	0.57	0.61	0.54	0.51	0.56		0.6		...	...
Machinery	0.52	0.48	1.08	1.19	1.21	1.20	1.17	1.24		1.1		...	...
Transport equipment	0.12	0.16	0.36	0.36	0.37	0.45	0.52	0.39		0.4		...	...
Other manufactured goods	...	...	...	2.10	2.37	2.38	2.37	2.40		2.1		...	...
SINGAPORE (*Malayan dollar*)[a]													
Food	57.6	58.0	51.1	44.7	45.2	50.5	50.5	53.0	49.7	52.9	47.9	58.1	...
Cereals and cereal preparations	20.7	22.6	17.9	11.7	11.7	13.3	14.9	12.6	11.5	13.3	9.9	7.9	...
Crude materials, inedible, except fuels	100.4	46.8	32.7	38.7	59.5	54.9	49.0	57.8	55.5	51.9	55.2	64.8	...
Crude rubber	89.8	38.8	24.4	27.8	51.0	46.4	39.7	49.6	46.6	41.9	43.9	53.3	...
Mineral fuels, lubricants and related materials	27.5	42.1	44.7	43.7	50.0	59.1	62.3	50.1	59.8	74.5	62.4	65.5	...
Textiles	39.4	25.9	14.9	12.7	17.9	17.9	20.5	14.0	16.8	19.0	17.5	15.0	...
Machinery	7.9	10.1	7.6	7.9	10.3	12.2	12.7	12.8	11.7	13.9	13.3	18.9	...
Transport equipment	9.4	10.2	6.0	4.9	6.2	7.6	8.0	6.8	5.8	8.6	8.5	11.6	...
Other manufactured goods	43.0	32.1	24.2	25.7	30.2	34.1	34.8	36.7	33.3	41.2	40.8	41.0	...
THAILAND (*baht*)													
Food	...	...	...	53.3	51.5	55.2	45.3	52.9	49.5	51.9[r]	56.9	*54.9*	*48.2*
Mineral fuels, lubricants and related materials	...	...	...	47.5	57.0	64.6	64.0	61.9	72.1	69.7	79.6	*71.3*	*47.8*
Chemicals	...	...	...	43.9	48.1	54.5	54.2	55.1	52.9	61.4	65.0	*70.4*	*60.7*
Textiles	...	...	...	105.0	113.4	120.3	93.1	96.5	131.4	*131.4*	*99.4*	*112.1*	*93.5*
Machinery	...	...	...	71.1	65.3	73.8	75.9	69.4	81.1	*83.7*	*76.2*	*105.7*	*106.6*
Transport equipment	...	...	...	44.6	48.7	53.1	52.8	65.4	39.6	*60.7*	*68.5*	*73.3*	*70.2*
Other manufactured goods	...	...	...	168.7	191.1	173.8	198.4	167.8	164.2	*199.5*	*203.1*	*179.1*	*165.0*
VIET-NAM (*piastre*)[c]													
Food	55.8	84.8	111.1	122.0	89.6	82.2	64.8	74.0	104.4	*70.1*	*95.2*	...	...
Petroleum and products	13.8	21.3	32.0	41.0	33.7	35.0	42.5	27.7	45.1	19.6	*84.7*	...	...
Textiles	164.9	209.6	231.4	190.1	111.2	123.5	102.8	89.8	183.7	108.6	*84.7*	*141.9*	...
Machinery	1.7[d]	51.0	71.7	76.2	65.4	49.2	50.2	52.7	37.1	64.8	81.3	122.1	...
Transport equipment	1.8	46.6	47.2	49.3	52.3	32.6	30.1	41.0	23.3	32.2	55.9	65.5	...

GENERAL NOTE: (1) See Table 5. (2) For Federation of Malaya and Singapore: Trade between Federation of Malaya and Singapore is excluded.

a. 1951 to 1954 figures for Ceylon, 1951 to 1956 figures for India and 1951 to 1952 figures for Federation of Malaya and Singapore, reclassified by ECAFE Secretariat, may not conform exactly to the new classification beginning from 1955, 1957 and 1953 respectively.

b. Imports valued f.o.b.

c. See footnote g. Table 5.

d. Excluding electric machinery.

e. Averages of Jan-Jun.

8. VALUE OF EXPORTS BY PRINCIPAL COMMODITIES AND/OR COMMODITY GROUPS

Monthly averages or calendar months — *Millions*

	1951	1952	1953	1954	1955	1956	1956 II	1956 III	1956 IV	1957 I	1957 II	1957 Jul	1957 Aug
BURMA (*kyat*)													
Rice and products	60.3	82.6	70.7	79.4	68.1	72.3	70.6	75.4	68.3	73.3	*82.2*	...	...
Natural rubber	2.4	2.2	2.0	2.4	2.7	3.7	4.0	3.7	1.5	3.2	*4.5*	...	...
Teak	4.0	3.0	2.4	2.0	1.8	2.8	2.6	2.7	3.4	1.2	—	...	...
Base metals and ores	3.5	5.0	4.6	3.8	4.9	5.2	5.6	4.5	4.9	3.1	*3.3*	...	...
CAMBODIA (*riel*)													
Rice	...	...	38.5	69.5	9.3	20.6	59.2	3.6	17.6	81.9	62.9	57.2	...
Maize	...	...	8.0	16.9	12.5	15.9	12.6	17.0	21.8	8.5	21.3	8.6	...
Natural rubber	...	...	25.8	34.3	51.1	42.2	29.7	53.5	36.1	33.4	54.8	43.4	...
CEYLON (*rupee*)													
Tea	66.7	60.3	68.8	93.6	99.5	87.0	89.5	85.3	87.6	105.7	79.4	84.2	84.1
Coconut and products	26.9	19.5	20.5	18.2	19.0	18.0	16.2	21.6	19.8	11.8	10.7	17.6	16.1
Natural rubber	48.5	31.1	28.1	23.8	29.2	24.4	24.6	31.0	20.3	33.9	19.3	32.5	6.6
CHINA (Taiwan, *NT dollar*)													
Rice	19.5	18.6	17.4	9.4	37.3	34.4	46.3	—	66.4	15.3	40.0	8.1	102.7
Fruits, fresh, dried and preserved	7.5	9.9	8.1	10.7	12.3	18.4	21.1	29.3	9.9	8.5	11.9	19.2	23.5
Tea	8.6	7.1	8.8	12.1	7.0	10.2	10.6	9.7	15.4	8.0	8.0	17.8	20.9
Sugar	64.6	72.0	111.2	70.2	79.6	127.6	124.9	83.5	106.4	317.0	230.6	59.2	147.1
INDIA (*rupee*)[a]													
Food	125.2	111.7	118.7	144.8	131.2	157.6	111.9	160.5	202.6	165.9	96.0	...	...
Tea	79.7	67.3	85.9	109.4	94.3	118.5	69.7	124.7	167.1	122.4	42.2	...	...
Spices	27.1	19.5	14.5	12.0	8.8	7.7	6.5	6.0	6.9	10.9	6.1	...	...
Crude materials, inedible, except fuels	99.9	88.8	86.3	73.2	98.3	84.2	76.0	72.2	89.7	120.8	120.1	...	...
Hides and skins, undressed	8.3	4.9	4.9	5.7	5.6	5.1	5.2	2.5	6.1	6.2	6.6	...	...
Cotton raw and waste	21.4	20.3	16.7	15.4	28.9	20.9	18.3	11.7	13.5	24.9	23.3	...	...
Vegetable oils	27.5	22.8	7.9	7.4	31.2	17.4	24.7	6.7	10.1	10.5	12.5	...	...
Chemicals	6.7	6.1	4.4	4.7	4.1	4.5	4.4	3.7	5.5	4.6	3.6	...	...
Leather and manufactures	27.9	14.8	21.2	18.2	19.0	18.7	16.3	15.8	21.0	17.7	20.0	...	...
Cotton yarn and fabrics	78.4	60.4	53.1	59.7	53.0	51.9	50.1	47.0	57.0	69.5	56.2	...	...
Jute yarn and fabrics	200.2	136.1	92.0	101.2	102.9	94.6	91.1	96.6	109.9	60.1	47.1	...	...
Other manufactured goods	35.1	29.0	30.9	29.3	31.3	30.9	29.5	28.9	32.6	73.6	100.0	...	...

EXTERNAL TRADE

8. VALUE OF EXPORTS BY PRINCIPAL COMMODITIES AND/OR COMMODITY GROUPS *(Cont'd)*

Monthly averages or calendar months — *Millions*

	1951	1952	1953	1954	1955	1956	1956 II	1956 III	1956 IV	1957 I	1957 II	1957 Jul	1957 Aug
INDONESIA *(rupiah)*													
Tea	11.6	20.9	22.3	37.8	29.7	28.1	31.0	24.4	32.9	36.0	22.2	35.6	24.6
Copra	40.7	43.2	54.1	54.8	40.6	42.8	41.4	52.2	56.4	43.2	25.6	35.8	94.3
Natural rubber	206.9	344.7	256.6	251.1	407.8	335.7	334.3	345.6	383.7	290.6	309.3	542.3	456.3
Tin ore	25.7	81.8	76.8	56.5	56.5	60.5	50.9	64.1	70.9	47.5	49.0	35.1	57.1
Petroleum and products	52.8	162.1	191.0	214.9	201.9	213.3	226.4	206.1	247.5	175.3	241.0	248.9	265.5
JAPAN *(1,000 Mn yen)*													
Food	2.02	2.87	3.72	3.92	3.98	5.32	5.09	4.88	5.93	4.53	4.64	*6.47*	*5.93*
Fish and fish preparations	1.06	1.37	1.82	2.23	2.27	3.62	3.50	3.27	4.23	3.36	2.92	*4.19*	*3.96*
Crude materials, inedible except fuels	2.34	2.52	2.09	2.50	2.94	2.86	2.67	2.98	3.27	2.52	2.55	...	...
Textile fibres, raw	1.84	1.47	1.42	1.54	1.74	1.65	1.37	1.72	2.13	1.51	1.53	...	...
Chemicals	1.10	1.20	1.87	2.37	2.82	3.21	3.37	3.35	2.88	3.76	4.26	...	...
Textiles	16.07	10.99	11.27	16.50	17.55	20.81	18.66	19.34	25.34	21.63	22.55	...	...
Base metals and manufactures	8.94	10.22	5.62	7.51	11.61	10.24	10.85	10.48	9.62	8.79	8.78	*10.73*	*9.99*
Machinery	3.28	3.48	2.14	3.86	3.83	5.07	4.86	5.09	6.38	5.26	5.96	*17.4*	*20.67*
Transport equipment	0.93	1.08	3.52	2.20	3.57	9.56	9.07	8.72	13.25	13.52	12.02		
Other manufactured goods	6.31	6.14	6.82	9.22	12.97	16.76	16.39	18.63	18.94	19.24	18.94	...	...
KOREA (southern, *hwan*)													
Food	3.3	19.8	52.0	67.4	42.7	58.5	50.4	65.9	94.6	104.4	117.1	63.7	228.0
Crude materials, inedible except fuels	33.2	131.7	235.0	426.6	566.5	841.5	1,066.8	755.2	803.0	681.5	686.1	530.1	483.9
Chemicals	0.5	3.5	16.2	31.5	47.0	35.8	53.8	26.4	12.3	41.2	27.6	41.6	13.6
Manufactured goods	0.8	6.9	17.8	26.5	64.7	108.4	121.8	109.2	118.6	102.3	155.5	213.1	229.7
LAOS *(kip)*													
Wood and lumber	...	...	...	...	1.00	0.28	0.14	0.27	0.25	0.01	—	...	...
Tin ore	...	...	...	...	0.75	1.34	0.90	0.60	0.90	1.20	2.10	...	...
Gums and resins	...	...	...	...	0.59	0.74	0.38	2.26	0.14	0.03	0.34	...	...
Plants for use in medicine and perfumery	...	...	...	...	0.09	0.24	0.09	0.34	0.48	0.18	0.22	...	...
MALAYA (Federation of) *(Malayan dollar)*													
Rubber	119.4	64.0	41.3	46.1	78.2	69.9	57.6	65.3	73.3	72.6	58.9	61.3	...
Iron ore	...	...	1.7	1.8	2.7	4.2	6.1	6.0	3.6	2.1	8.6	7.8	...
Vegetable oils	...	...	4.9	4.7	4.9	5.9	6.3	6.4	6.6	5.2	4.1	5.9	...
Tin	...	...	18.3	18.3	19.2	28.2	28.2	28.9	27.3	21.7	26.5	28.3	...
NORTH BORNEO *(Malayan dollar)*													
Copra	1.31	0.62	0.73	1.15	1.18	1.94	1.74	2.66	2.03	1.90	1.76	...	...
Rubber	7.18	3.26	1.95	2.03	3.84	3.36	2.84	3.38	3.58	3.24	3.11	...	...
Timber	0.85	0.69	1.03	1.46	1.81	2.18	1.92	2.55	2.10	2.40	2.40	...	...
PAKISTAN *(rupee)*													
Tea	5.0	2.7	2.9	3.9	2.9	4.5	2.6	3.9	9.4	3.7	0.3	0.2	0.9
Raw jute	96.9	58.0	47.6	45.4	58.0	62.6	41.0	35.6	59.3	109.9	30.5	26.6	24.3
Raw cotton	80.2	72.0	52.7	29.1	33.6	30.3	37.6	21.2	14.0	59.0	23.1	9.3	10.1
Raw wool	4.9	4.1	4.3	3.5	5.6	5.9	5.0	5.4	8.7	8.0	10.6	12.0	6.7
Hides and skins	4.9	2.8	3.3	2.8	2.6	3.3	3.1	2.9	3.5	3.6	4.4	2.2	2.7
PHILIPPINES *(peso)*													
Coconut and coconut preparations	34.8	20.3	26.3	27.4	25.0	29.3	28.2	30.9	32.1	25.7	29.2	31.7	32.6
Sugar and related products	12.6	16.8	17.0	18.4	18.6	17.6	22.3	11.1	14.9	21.4	20.9	11.7	6.6
Fibres and manufactures	12.8	7.4	7.2	4.9	5.1	6.5	7.0	6.6	6.1	7.0	6.3	7.4	7.5
Minerals and metals	4.4	5.8	5.9	5.9	6.7	9.2	7.6	8.9	8.3	5.1	6.7	2.3	7.0
Logs, lumber and timber	2.9	3.2	4.8	5.9	6.9	8.1	7.5	9.1	8.3	70	9.4	8.7	7.7
SARAWAK *(Malayan dollar)*							[d]						
Pepper	1.49	2.75	4.12	3.64	2.64	2.05	1.80	2.30		0.96		...	...
Rubber	13.24	5.43	2.64	2.87	6.64	5.86	6.35	5.36		6.51		...	...
Timber, sawn and logs	0.39	0.74	1.16	1.16	1.83	1.59	1.84	1.33		1.58		...	...
Mineral fuels, lubricants and related materials	24.90	25.08	24.42	24.46	26.74	28.85	28.95	28.75		30.36		...	...
SINGAPORE *(Malayan dollar)*													
Rubber	210.7	93.6	61.8	66.2	115.9	102.0	91.4	99.2	105.5	94.0	91.5	103.2	...
Mineral fuels	...	...	28.6	29.4	31.2	36.2	39.1	30.8	30.7	42.7	36.9	39.0	...
Vegetable oils	...	...	2.8	4.5	3.9	3.9	3.3	3.7	4.9	4.3	3.9	4.3	...
Tin	...	...	14.4	16.3	16.9	11.6	11.1	10.4	12.5	18.9	11.5	5.4	...
THAILAND *(baht)*[b]													
Rice	152.0	322.2	312.2	257.2	259.8	238.4	246.4	221.8	270.4	308.3	315.5	354.1	369.7
Natural rubber	123.6	83.2	62.6	92.4	150.0	127.2	105.9	92.9	156.6	140.4	95.8	145.0	64.4
Teak	12.7	8.2	11.1	17.6	22.1	31.9	28.8	27.6	22.4	25.2	21.5	28.7	19.5
Tin ore and concentrates	16.5	18.4	33.3	31.1	36.7	42.3	37.4	45.1	48.6	44.1	37.4	35.2	48.2
VIET-NAM *(piastre)*[c]													
Rice and products	62.4	44.9	52.5	64.2	26.2	1.1	—	0.7	3.7	13.7	96.7	136.5	...
Natural rubber	102.7	71.8	70.5	68.7	122.7	107.0	52.0	139.0	102.6	152.5	86.7	110.5	...

GENERAL NOTE: (1) See Table 5. (2) For Federation of Malaya and Singapore: Trade between Federation of Malaya and Singapore is excluded.

a. Figures for 1951 to 1956, reclassified by ECAFE Secretariat, may not conform exactly to the new classification from 1957.

b. From 1952 onwards baht value is obtained by converting foreign currencies at free market buying rate.

c. See footnote g. Table 5.

d. Averages of Jan-Jun.

9. QUANTITY OF EXPORTS OF SELECTED COMMODITIES

Monthly averages or calendar months

Thousand tons

	1948	1951	1952	1953	1954	1955	1956	1956 II	1956 III	1956 IV	1957 I	1957 II	1957 Jul	1957 Aug
RICE														
Burma	105.9†	110.2	109.4	86.9	129.6	141.5	162.1	153.3	175.5	155.4	*164.3*	*185.6*	...	...
Cambodia	...	20.7	17.5	11.5	24.7	8.4	5.8	14.8	1.7	5.7	24.7	22.3	22.3	19.5
China (Taiwan)	0.8	7.1	8.8	4.9	3.0	14.2	9.1	12.4	—	18.3	4.2	11.0	2.2	28.1
Thailand	67.7	131.4	118.8	113.3[r]	83.5	104.0	105.5	108.3	94.8	122.0	148.1	143.2	153.9	*153.8*
Viet-Nam	...	23.0	12.8	8.6	14.6	6.8	0.4	—	0.3	1.3	3.7	25.8	37.8	19.9
SUGAR														
China (Taiwan)	21.3	23.6	38.3	72.9	43.5	48.8	50.0	49.4	33.0	41.8	114.8	73.6	21.0	37.3
Indonesia	5.3	0.5	0.1	7.8	17.7	14.7	14.1	1.4	16.2	19.6	3.7	2.6	19.1	19.7
Philippines	18.1	47.2	66.1	64.3	72.4	77.2	71.9	87.0	44.8	61.8	92.8	89.7	49.0	26.6
TEA														
Ceylon	11.2	11.5	11.9	12.8	13.6	13.6	13.2	14.0	13.4	12.8	14.1	14.3	14.4	15.4
China (Taiwan)	0.6	0.9	0.8	0.9	1.3	0.6	0.9	0.9	1.0	1.4	0.8	0.8	1.6	1.7
India	13.2	17.0	15.5	18.8	16.8	13.6	19.5	13.1	19.2	24.9	18.4	7.5	15.7	19.4
Indonesia	0.7	3.3	2.7	2.4	3.4	2.4	2.9	3.2	2.6	3.3	3.4	2.5	4.0	*3.1*
Japan	0.3	0.7	0.8	1.1	1.4	1.2	0.9	0.6	0.9	1.0	0.8	0.4	1.0	1.1
Pakistan	1.2	1.8	0.9	1.0	0.8	0.4	0.8	0.5	0.8	1.6	0.6	—	—	*1.1*
HIDES & SKINS														
India[a] (net exports, *tons*)	1,066	1,325	615	478	424	366	276	357	—	386	—	2,170	...	...
Pakistan (*1,000 pieces*)	869[e]	944	719	898	811	749	878	824	760	994	1,009	1,057	604	...
COPRA[b] & COCONUT OIL														
Ceylon	9.2	10.3	11.1	9.0	8.2	11.6	10.1	10.5	12.2	8.7	5.4	5.1	9.0	7.9
Indonesia (copra)	12.1[d]	27.2	17.4	15.6	14.8	11.8	13.1	11.9	16.4	18.9	23.2[r]	14.3	20.8	46.2
Malaya (Fed. of; coco. oil)	1.6	4.3	3.6	4.0	3.7	4.8	6.0	6.4	6.6	6.4	5.8	3.4	4.0	...
N. Borneo	0.3	0.9	0.6	0.7	1.4	1.8	3.0	2.6	4.2	3.1	2.9	2.9	...	...
Philippines	35.3	45.0	40.3	35.1	43.8	46.4	57.4	54.7	60.4	64.6	52.9	59.8	64.1	63.0
Singapore (coco. oil)	2.2	1.5	2.0	1.1	3.0	2.9	2.7	2.2	3.2	3.0	3.2	2.9	4.0	...
PALM OIL														
Indonesia	3.3	8.1	10.1	11.0	11.7	9.7	10.4	9.9	12.7	10.4	2.6	8.3	23.6	16.2
Malaya (Fed. of)	1.4	1.2	1.2	1.9	2.2	2.2	2.2	2.3	2.0	2.7	2.2	2.2	3.8	...
Singapore	2.6	2.6	2.7	2.2	2.1	2.3	2.4	2.2	1.7	3.3	2.1	2.0	1.0	...
GROUND NUTS[b] & OIL														
India	5.5	5.8	5.6	1.7	2.5	14.8	2.8	0.2	—	0.1	0.7	0.2	...	...
NATURAL RUBBER														
Brunei	0.2	0.2	0.2	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1
Burma	0.8	0.8	1.2	0.9	1.0	1.0	1.0	1.1	1.1	0.5	1.1	*1.0*	*1.0*	*1.0*
Cambodia	...	...	1.4	1.5	2.0	2.2	2.4	1.7	2.6	2.8	*1.8*	3.6	2.5	...
Ceylon	7.8	8.8	7.6	8.2	7.6	8.2	7.3	4.5	7.1	8.6	10.1	7.5	5.7	4.6
Indonesia	36.6	67.2	61.8	57.1	61.7	61.1	56.6	56.2	65.3	64.4	49.0	52.5	86.7	78.9
Malaya (Fed. of)	32.6	27.2	28.3	27.5	35.3	37.9	36.6	33.9	34.4	39.2	38.5	33.4	33.2	...
N. Borneo	1.7	1.8	1.6	1.4	1.4	1.7	1.7	1.6	1.8	1.7	1.7	1.6	1.6	1.5
Sarawak	3.4	3.6	2.7	2.0	1.9	3.3	3.5	3.7	3.2	3.3	3.6	3.6	3.7	3.4
Singapore	24.8	24.3	20.1	20.7	13.1	15.6	15.7	16.7	13.9	17.1	15.3	14.5	16.0	...
Thailand	8.1	9.2	8.3	8.1	9.9	11.0	11.3	10.6	9.0	14.0	13.5	9.0	13.5	*5.8*
Viet-Nam	...	4.5	5.3	5.0	4.6	5.2	5.3	3.8	6.1	5.5	7.8	4.0	5.9	*6.4*
COTTON, RAW														
India	8.0	2.3	4.4	3.8	2.3	7.9	5.9	4.8	2.4	2.9	4.0	8.0	...	...
Pakistan	13.6	18.3	20.4	23.6	11.8	14.0	10.9	13.2	7.1	5.1	19.7[r]	8.0	3.0	4.0
COTTON YARN (*tons*)														
Hong Kong	...	1,732	1,300	1,190	1,172	1,228	1,183	1,331	949	1,032	1,545	1,283	834	1,110
Japan	458	1,025	1,117	801	1,117	991	1,032	882	824	978	1,319	1,316	1,621	1,217
Malaya	22	167	119	113	54	9	44	21	139	6	11	9	1	...
COTTON PIECE GOODS (*Mn sq. metres*)														
Hong Kong	...	12.2[e]	‖10.1	9.3	11.3	11.5	9.8	9.0	13.7	11.4	13.8	12.8	16.0	10.5
India (*Mn metres*)	23.5	59.1	45.7	50.0	65.6	56.9	56.7	56.0	50.2	63.6	82.2	68.3	...	...
Japan	28.2	75.3	52.0	63.7	89.0	79.3	87.9	72.3	71.9	106.3	93.0	100.7	94.2	110.9
Malaya (Fed. of) and Singapore	7.5[e]	‖14.5	9.6	8.0	2.7	5.0	4.5	5.4	3.9	2.7	6.9	3.6	2.0	...
JUTE														
Pakistan (raw)	28.1‡	88.7	70.0	81.7	74.3	81.8	71.5	44.0	40.8	65.0	107.5	32.0	26.0	24.0
India (bag and cloth)	78.4	67.1	60.0	60.3	67.8	79.6	67.9	67.8	71.2	78.0	68.1	54.4	79.0	...
HEMP, RAW														
Philippines	6.2	10.3	9.1	9.3	8.2	9.3	10.2	11.8	10.3	9.4	10.1	9.6	11.3	11.2
TIN CONCENTRATES (*tons*)														
Burma	155	125	118	83	52	79	71	*71*	*71*	*71*	*71*	*71*	...	...
Indonesia	2,753	2,604	2,929	2,771	2,874	2,689	2,638	2,227	2,732	3,212	2,034	2,044	2,003	2,785
Thailand	479	746	825	863	806	935	1,052	960	1,105	1,198	*884*	*1,066*	*891*	*1,234*
TIN METAL (*tons*)														
Malaya (Fed. of)	2,398	3,008	3,140	2,955	3,134	3,204	4,399	4,511	4,630	4,120	3,379	1,126	4,910	...
Singapore	1,595	2,489	2,286	2,274	2,816	2,821	1,806	1,759	1,675	1,908	2,919	1,806	844	...
PETROLEUM & PRODUCTS														
Brunei (crude oil)	224	415	423	406	398	433	469	471	470	472	459	...	...	...
Indonesia	321	506	618	800	824	789	877	940	819	1,054	755	1,022	1,025	1,243
Malaya (Fed. of) and Singapore	82	163	204	225	235	268	239	229	174	175	259	206	222	...

GENERAL NOTE: For Federation of Malaya and Singapore: Trade between Singapore and Federation of Malaya is excluded.

a. Prior to 1955, years beginning 1 April.

b. In terms of oil equivalent.

e. Year beginning 1 April.

d. Excluding exports to Singapore from Indonesia.

e. Million metres.

EXTERNAL TRADE

10. INDEX NUMBERS OF UNIT VALUE, QUANTUM AND TERMS OF TRADE

1953=100[a]

	1950	1951	1952	1953	1954	1955	1956	1956 II	1956 III	1956 IV	1957 I	1957 II	1957 Jul	1957 Aug
A. *Unit Value*														
BURMA														
Imports	189†	129†	115	100	93	89	82	86	80	78	83	...	...	...
Exports	62†	74†	94	100	77	62	62	64	59	61	*59*	...	...	...
CEYLON														
Imports:[b] General	86	102	110	100	88	89	99	89	90	89	95	105	106	...
Exports:[b] General	104	126	98	100	112	117	109	108	104	113	113	102	96	...
Tea	102	106	94	100	126	134	122	122	115	128	126	106	98	...
Rubber	100	165	114	100	88	101	98	93	94	93	94	91	95	...
All coconut products	114	134	83	100	94	79	79	79	79	83	91	91	83	...
Imports (Central Bank index)	84	101	108	100	92	86	90	92	91	90	96	99	98	...
Consumer goods	84	99	107	100	91	84	85	86	85	86	90	94	91	...
Capital goods	83	107	113	100	95	97	107	113	108	104	114	114	120	...
CHINA (Taiwan)														
Imports	...	...	111	100	108	111	106	109	104	109	108	113	...	...
Exports	...	...	113	100	105	110	105	107	103	107	105	118	...	...
INDIA‡														
Imports: General	...	...	109	100	97	95	*97*[h]	97	96	99	*101*	...	...	...
Food, drink and tobacco	...	...	99	100	85	88	*90*	88	92	96	...	...	...	...
Raw materials and semi-manufactures	...	...	104	100	99	97	*100*	103	99	99	...	...	...	...
Manufactures	...	...	115	100	99	98	*100*	99	99	103	...	...	...	...
Exports: General	...	...	109	100	107	98	*102*	97	101	109	*102*	...	...	...
Food, drink and tobacco	...	...	94	100	122	105	*111*	105	112	125	...	...	...	...
Raw materials and semi-manufactures	...	...	100	100	99	90	*103*	98	106	111	...	...	...	...
Manufactures	...	...	120	100	99	96	*93*	91	90	96	...	...	...	...
INDONESIA														
Imports	84	116	110	100	91	91	88	91	90	94	87	...	...	...
Exports	111	160	113	100	96	109	102	101	100	99	106	...	...	...
JAPAN[c]														
Imports	90	124	114	100	96	94	97	95	98	100	103	106	104	106
Exports	82	122	108	100	96	91	94	93	95	96	96	97	98	98
MALAYA (Fed. of) and **SINGAPORE**[d]														
Imports	96	120	108	100	90	92	*91*	91	88	90	96	97	...	...
Exports	116	172	125	100	94	120	*110*	106	104	108	110	108	...	...
PAKISTAN														
Imports: General	91	116	102	100	98	119	164	154	162	178	180	...	...	...
Food, drink and tobacco	91	118	106	100	124	160	185	177	169	179	...	...	...	...
Raw materials	104	135	112	100	96	104	132	127	134	135	...	...	...	...
Manufactures	89	113	99	100	92	111	160	156	158	184	...	...	...	...
Exports: General[e]	144	194	142	100	107	118	140	143	141	140	154	149	...	...
Jute	158	200	146	100	105	121	153	159	152	157	...	...	...	...
Cotton	137	209	156	100	110	110	124	125	134	119	...	...	...	...
Wool	78	129	82	100	97	102	129	129	122	135	...	...	...	...
Tea	128	121	100	100	134	201	171	155	170	192	...	...	...	...
PHILIPPINES														
Imports[f]	94	106	105	100	96	96	97	100	97	96	97	100	102	103
Exports	97	104	82	100	89	81	83	83	82	84	84	84	84	80
THAILAND														
Exports:														
Effective price in baht	98	117	104	100	97	122	124	122	124	122	123	121	...	...
Price in dollars (*IMF index*)	88	104	102	100	93	88	81	79	81	80	81	78	...	...
VIET-NAM[g]														
Imports	71	75	81	100	101	95	90	86	98	92	92	99	100	...
Exports	72	90	88	100	94	99	92	81	88	88	99	96	86	...

10. INDEX NUMBERS OF UNIT VALUE, QUANTUM AND TERMS OF TRADE *(Cont'd)*

1953=100[a]

	1950	1951	1952	1953	1954	1955	1956	1956 II	1956 III	1956 IV	1957 I	1957 II	1957 Jul	1957 Aug
B. *Quantum*														
BURMA														
Imports	64†	69†	104	100	123	104	88	106	74	98	...	...	...	...
Exports	79†	113†	115	100	130	145	*165*	158	173	*159*	*204*	165	...	...
CEYLON														
Imports:[b] General	84	94	96	100	99	97	106	96	108	128	113	110	128	180
Exports:[b] General	92	93	97	100	103	109	104	102	115	101	111	92	117	102
Tea	89	91	94	100	108	108	104	108	109	129	122	115	125	119
Rubber	123	107	97	100	100	106	101	94	119	78	133	194	206	67
All coconut products	83	94	109	100	96	118	113	98	133	123	72	59	102	101
Imports (Central Bank index)	88	99	99	100	93	96	105	93	109	118	119	113	99	...
Consumer goods	89	95	98	100	89	95	106	90	111	126	113	105	88	...
Capital goods	85	109	104	100	103	104	102	104	103	91	140	139	135	...
CHINA (Taiwan)														
Imports (ordinary and ICA)	...	...	81	100	105	98	94	102	81	98	91	93	...	...
Exports	...	...	67	100	69	86	83	87	60	87	141	105	...	...
Food	...	...	65	100	68	85	81	85	56	83	143	107	...	...
INDIA‡							[h]							
Imports: General	...	...	108	100	118	125	*146*	139	147	148	*161*	...	...	...
Food, drink and tobacco	...	...	185	100	144	70	*56*	42	48	50	...	...	...	...
Raw materials and semi-manufactures	...	...	100	100	105	99	*102*	86	100	104	...	...	...	...
Manufactures	...	...	88	100	115	159	*203*	206	209	208	...	...	...	...
Exports: General	...	...	100	100	105	115	*109*	101	105	114	*123*	...	...	...
Food, drink and tobacco	...	...	102	100	109	103	*117*	92	125	128	...	...	...	...
Raw materials and semi-manufactures	...	...	139	100	114	171	*123*	121	91	108	...	...	...	...
Manufactures	...	...	86	100	101	101	*102*	99	101	111	...	...	...	...
JAPAN[c]														
Imports: General	45	67	74	100	104	109	138	141	140	151	171	200	186	170
Foods	56	77	93	100	117	117	107	112	100	110	84	118	110	95
Raw materials	48	68	71	100	97	106	144	149	153	154	179	186	162	147
Mineral fuels	25	51	65	100	100	106	133	129	131	146	169	207	198	251
Chemicals	12	49	57	100	93	146	202	215	207	229	224	272	...	...
Machinery	5	42	54	100	113	93	126	127	116	137	168	206	...	...
Exports: General	78	87	92	100	133	174	208	202	205	237	215	218	240	247
Foods	40	51	78	100	93	105	136	128	133	150	115	115	166	160
Chemicals	34	45	55	100	126	162	207	211	206	191	253	293	...	...
Manufactured goods	81	89	94	100	140	186	222	216	219	255	265	240	258	265
Textiles	100	100	86	100	149	179	204	184	191	242	208	222	...	...
Metals	113	120	169	100	148	226	165	181	184	149	136	127	...	...
Machinery	51	54	64	100	112	157	290	298	265	383	355	341	...	...
MALAYA (Fed. of) and SINGAPORE[d]														
Imports	99	131	116	100	107	128	140	137	147	143	144	135	...	...
Exports	121	128	109	100	110	118	126	121	133	134	126	122	...	...
PHILIPPINES														
Imports[f]	80	100	90	100	111	125	123	125	129	131	139	161	159	129
Exports	86	96	107	100	111	121	138	141	134	142	144	131	144	133
THAILAND														
Exports	114	112	100	100	87	108	112	108	98	133	134	131	...	...
VIET-NAM[g]														
Imports	72	75	103	100	113	90	77	73	70	77	86	95	115	...
Exports	111	153	123	100	113	132	85	48	116	91	121	157	204	...
C. *Terms of trade*														
Percentage of unit value index of exports to unit value index of imports.														
BURMA	33†	57†	81	100	83	70	76	74	74	78	*71*	...	...	...
CEYLON	120	124	89	100	127	132	110	121	116	127	120	...	...	...
CHINA (Taiwan)	...	...	102	100	97	99	99	97	100	98	96	102	...	...
INDIA‡	...	...	100	100	110	103	106[h]	100	105	110	*101*	...	...	...
INDONESIA	132	138	103	100	105	120	116	111	112	105	122	...	...	...
JAPAN	92	98	94	100	100	96	97	98	97	96	93	91	95	93
MALAYA (Fed. of) and SINGAPORE	120	143	116	100	104	130	121	116	118	120	116	112	...	...
PAKISTAN	158	167	140	100	109	99	...	93	87	79	86	...	...	...
PHILIPPINES	103	98	78	100	93	85	85	84	84	87	86	84	82	78
VIET-NAM[g]	102	120	109	100	94	106	101	94	90	96	108	97	86	...

a. Original base: *Burma*, Apr 1936-Mar 1941 for the period prior to 1953, 1952 since 1953; *China*, 1952; *Ceylon*, 1948; *India*, Apr 1952/Mar 1953; *Indonesia*, 1950; *Japan*, 1950; *Malaya*, 1938 for period prior to 1953, 1952 since 1953; *Pakistan*, Apr 1948/Mar 1949; *Philippines*, 1955; *Viet-Nam*, 1949.

b. All trade indexes since 1950 except the annual import price index have been computed on a fixed base (1948) weights method. The annual import price index has been computed by using moving current weights on 1948 base.

c. Indexes compiled by Ministry of Finance. The commodity groups are abridged titles of selected SITC sections and divisions.

d. Figures from 1953, though linked to previous figures, have different treatment in imports and exports of petroleum products.

e. Index of f.o.b. export prices.

f. Based on f.o.b. import prices.

g. See footnote g to table 5.

h. Calendar year from 1956.

11. INDEX NUMBERS OF WHOLESALE PRICES

1953=100[a]

	1951	1952	1953	1954	1955	1956	1956 II	1956 III	1956 IV	1957 I	1957 II	1957 Jul	1957 Aug
BURMA													
All agricultural produce	121	103	100	100	96	99	96	101	103	100	117	114	117
Cereals	112	107	100	101	107	103	104	109	103	95	102	106	114
Non-food agricultural produce	148	112	100	114	107	103	99	99	108	113	122	124	123
CHINA (Taipei)													
General index	75	92	100	102	117	132	130	130	138	141	141	140	140
Food	63	78	100	105	114	123	120	120	130	130	132	133	135
Apparel	89	107	100	94	110	106	108	101	105	107	106	103	101
Fuel and light	73	89	100	106	116	142	139	144	150	164	167	165	166
Metals and electrical materials	84	104	100	102	158	190	188	185	199	208	199	192	189
Building materials	62	94	100	105	115	153	150	175	173	171	170	163	157
Manufactured products	85	91	100	104	120	143	142	143	153	157	165	165	...
Industrial materials	80	95	100	100	116	138	131	136	153	158	167	167	...
INDIA													
General index	112	98	100	98	90	102	100	106	108	107	109	113	112
Food articles	108	94	100	94	80	98	94	102	107	105	110	115	116
Industrial raw materials	132	99	100	97	89	106	104	109	111	113	115	118	115
Semi-manufactured articles	106	97	100	100	94	109	108	113	116	115	114	116	115
Manufactured goods	108	103	100	102	102	104	103	106	106	105	106	107	107
INDONESIA (Djakarta) (imported goods)													
All articles	99	94	100	109	145	135	133	133	138	142	147	...	...
Provisions	68	84	100	110	144	147	140	143	156	161	165	...	...
Textile goods	109	89	100	110	169	118	116	114	116	117	123	...	...
Chemicals	99	90	100	109	151	137	141	136	129	126	127	...	...
Metals	103	105	100	98	115	135	129	137	149	156	160	...	...
JAPAN													
General index	97	100	100	99	98	102	101	103	105	106	106	104	104
Edible farm products	84	93	100	112	112	109	110	109	108	109	111	110	110
Other foodstuffs	99	103	100	106	103	101	100	101	103	104	104	104	104
Textiles	126	101	100	92	87	88	91	87	88	87	83	80	80
Chemicals	102	109	100	93	90	94	94	94	94	95	96	95	95
Metal and machinery	109	105	100	94	97	116	112	120	125	125	123	119	117
Building materials	77	85	100	104	96	104	99	108	111	115	117	115	114
Fuel	79	100	100	96	101	105	102	104	109	112	111	112	111
Producer goods	97	100	100	96	95	104	102	105	108	109	109	107	106
Consumer goods	96	100	100	103	101	99	98	99	101	102	101	101	101
KOREA (Seoul, Aug-Dec 1953=100)													
General index	...	...	100	124	225	303	297	343	326	360	377	373	380
Food grains	...	...	100	97	234	366	364	459	396	416	486	480	476
Textile raw materials	...	...	100	140	235	271	250	280	306	310	305	298	311
Textiles	...	...	100	132	165	168	161	175	186	173	162	157	162
Building materials	...	...	100	154	236	254	259	255	252	270	292	288	283
Fertilizers	...	...	100	100	175	608	639	639	639	639	639	639	639
PHILIPPINES (Manila)													
General index	110	101	100	95	92	95	95	96	97	97	97	99	102
Food	110	107	100	97	95	96	95	96	97	99	98	101	106
Crude materials	101	81	100	88	84	90	91	89	91	91	90	90	93
Mineral fuels	99	105	100	97	95	97	96	99	100	104	105	106	106
Chemicals	120	103	100	95	88	88	88	88	88	89	92	95	95
Manufactured goods	137	109	100	96	92	100	99	101	102	103	103	104	105
Domestic products	108	100	100	94	92	94	94	95	96	96	96	97	101
Exported products	103	82	100	88	81	84	86	84	85	86	87	89	90
Imported products	119	105	100	97	92	100	100	101	103	104	105	107	107
THAILAND (Bangkok)													
General index	101	107	100	98	114	117	117	121	116	115	118	125	121
Agricultural produce[b]	135	120	100	98	136	130	128	134	128	124	129	143	131
Foodstuff[b]	82	98	100	96	108	116	116	121	113	113	116	123	120
Clothes	143	131	100	99	102	101	101	101	101	101	101	101	101
Fuel	98	101	100	103	108	109	109	109	109	109	109	109	109
Metal	140	135	100	97	126	139	135	140	149	151	148	141	134
Construction materials	90	97	100	103	104	103	102	103	105	105	105	105	105
VIET-NAM (Saigon-Cholon)													
General index	77	87	100	106	117	124	124	129	115	114	117	128	132
Rice and paddy	57	90	100	83	99	114	121	120	90	94	90	115	122
Other food products	68	77	100	117	117	128	127	136	130	131	139	141	143
Fuel and mineral products	82	83	100	120	121	132	134	133	135	134	140	139	144
Raw materials	121	92	100	117	145	132	122	131	135	131	135	139	144
Semi-finished products	82	87	100	120	123	131	128	134	137	132	139	140	138
Manufactured products	99	93	100	122	126	123	123	129	118	104	115	116	115
Local products	75	89	100	100	116	123	125	129	111	112	111	126	131
Imported products	84	83	100	121	121	124	124	127	126	121	132	135	133

a. Original base: *Burma*, 1938-40; *China*, Jan-Jun 1937 except indexes of manufactured products and industrial materials for which the base is 1951; *India*, Sep 1938/Aug 1939; *Indonesia*, 1938; *Japan*, 1948 for 1951, 1952 since 1952; *Korea*, 1947; *Philippines*, 1955; *Thailand*, Apr 1938/Mar 1939; *Viet-Nam*, 1949.

b. Agricultural produce includes paddy, rice meal, copra, rubber, etc.; foodstuff includes milled rice, pork, banana, etc.

12. INDEX NUMBERS OF PRICES RECEIVED AND PAID BY FARMERS

1953 = 100[a]

	1951	1952	1953	1954	1955	1956	1956 II	1956 III	1956 IV	1957 I	1957 II	1957 Jul	1957 Aug
CHINA (Taiwan)													
Prices received by farmers (R)	51	74	100	92	102	110	107	102	119	118	122	116	...
Prices paid by farmers (P)	54	73	100	93	101	111	111	103	115	117	118	114	...
Cultivation cost	56	73	100	93	106	113	113	107	116	118	119	118	...
Domestic expenditure	53	73	100	92	100	109	110	102	114	117	118	112	...
Ratio (R) ÷ (P)	95	102	100	99	100	99	96	99	103	101	103	102	...
INDIA (Punjab)													
Prices received by farmers (R)	96	94	100	94	78	97	81	102	107	110	104	...	...
Prices paid by farmers (P)	107	102	100	98	86	96	93	96	100	105	104	...	...
Cultivation cost	117	105	100	92	79	91	87	91	93	98	94	...	...
Domestic expenditure	101	101	100	102	91	99	97	98	106	110	110	...	...
Ratio (R) ÷ (P)	90	92	100	96	90	101	87	106	107	104	100	...	...
JAPAN[b] (*Apr 1953-Mar 1954=100*)													
Prices received by farmers (R)	81‡	85‡	100‡	98‡	95‡	98	99	99	97	98	99	99	...
Prices paid by farmers (P)	94‡	98‡	100‡	103‡	101‡	102	101	101	103	104	105	105	...
Cultivation cost	92‡	99‡	100‡	102‡	98‡	98	97	98	99	101	103	103	...
Domestic expenditure	95‡	97‡	100‡	103‡	103‡	103	103	103	104	107	106	106	...
Ratio (R) ÷ (P)	86‡	87‡	100‡	96‡	94‡	97	97	98	94	94	94	94	...

a. Original base: *China*, 1952, *India*, Sep 1938/Aug 1939; *Japan*, Apr 1951/Mar 1952.

b. Index numbers of commodity prices in 473 towns or villages. Annual figures relate to fiscal year April to March, except 1956 which relates to calendar year.

13. INDEX NUMBERS OF COST OF LIVING

1953 = 100[a]

	1951	1952	1953	1954	1955	1956	1956 II	1956 III	1956 IV	1957 I	1957 II	1957 Jul	1957 Aug
A. All items													
BURMA: Rangoon	107	103	100	96	98	111	115	114	112	112	119	129	127
CAMBODIA: Phnom-Penh (*1952=100*)	89	100	...	139	155	164	166	167	160	159	167	165	164
CEYLON: Colombo	99	‖ 98	100	100	99	99	99	98	99	99	101	102	101
CHINA: Taipei	66	84	100	102	112	124	121	121	131	131	130	132	136
HONG KONG	98	99	100	98	95	97	95	101	101	100	97	98	97
INDIA (*interim index*)	98	97	100	95	90	99	98	101	103	101	103	105	106
JAPAN (*urban*)	89	94	100	106	105	106	106	106	107	109	110	110	111
KOREA (southern)	28	69	100	135	229	285	276	307	314	368	371	348	354
LAOS: Vientiane	53	74	100	123	125	141	137	146	148	157	...	...	...
MALAYA (Federation of)	101	103	100	94	91	92	92	92	93	96	96	96	96
PAKISTAN: Karachi	88	90	100	98	94	97	96	99	99	102	105	106	109
Narayanganj	94	101	100	84	85	99	97	102	96	99	104	106	106
PHILIPPINES: Manila	111	104	100	99	98	100	99	101	104	101	100	101	103
THAILAND: Bangkok	82	91	100	100	105	111	110	112	115	115	117	120	127
VIET-NAM: Saigon	64	79	100	113	124	139	138	147	134	130	134	137	136
B. Food													
BURMA: Rangoon	108	104	100	97	96	106	111	110	105	107	118	136	133
CAMBODIA: Phnom-Penh (*1952=100*)	85	100	...	137	159	173	176	179	169	166	176	174	172
CEYLON: Colombo	96	‖ 94	100	100	99	97	98	95	98	97	99	100	97
CHINA: Taipei	62	78	100	102	108	126	121	121	139	133	130	136	146
HONG KONG	94	95	100	95	90	95	91	102	101	98	95	97	95
INDIA (*interim index*)	96	94	100	93	85	96	96	100	101	99	101	104	106
INDONESIA: Djakarta	89	94	100	106	141	161	156	155	161	156	158	165	178
JAPAN (*urban*)	91	94	100	108	105	104	104	103	104	107	108	108	109
KOREA (southern)	27	78	100	117	207	271	265	314	299	339	366	343	350
LAOS: Vientiane	47	70	100	122	118	122	122	123	125	137	...	...	...
MALAYA (Federation of)	101	103	100	90	87	88	87	87	89	92	93	93	93
PAKISTAN: Karachi	89	93	100	98	95	100	98	104	103	107	111	114	...
Narayanganj	93	103	100	79	80	97	96	101	94	97	103	105	105
PHILIPPINES: Manila	111	106	100	99	98	101	99	103	105	100	99	104	107
THAILAND: Bangkok	81	91	100	98	103	108	106	110	113	107	116	119	127
VIET-NAM: Saigon	59	80	100	107	122	140	140	151	134	128	131	136	135

GENERAL NOTES: All figures refer to working class expenditures except for the following countries: *China*, public servants; *Hong Kong*, clerical and technical workers; *Indonesia*, government employee; *Japan*, urban population; *Laos*, middle class; *Thailand*, low salaried workers and civil servants.

a. Original base: *Burma*, 1941; *Cambodia*, 1949; *Ceylon*, Nov. 1942 for 1951, 1952 since 1952; *China*, Jan-Jun 1937; *Hong Kong*, Mar 1947; *India*, 1949; *Indonesia*, Jul 1938; *Japan*, 1951; *Korea*, 1947; *Laos*, Dec 1948; *Malaya*, Jan 1949; *Pakistan*, Apr 1948/Mar 1949 *Philippines*, 1955; *Thailand*, Apr 1938/Mar 1939; *Viet-Nam*, 1949.

14. EMPLOYMENT AND WAGES

Base for index Numbers, 1953[a]

	1948	1952	1953	1954	1955	1956	1956 II	1956 III	1956 IV	1957 I	1957 II	1957 Jul	1957 Aug
CEYLON													
Index of wages													
Tea and rubber estate workers[b]	66	98	100	102	106	107	107	106	107	106	107	109	...
Government workers (Colombo)[c]	86	99	100	100	104	106	106	106	106	106	106	106	...
Index of real wages													
Tea and rubber estate workers[b]	75	101	100	103	107	108	108	108	108	107	106	107	...
Government workers (Colombo)[c]	102	108	100	101	106	107	107	107	106	106	104	104	...
CHINA (Taiwan)													
Employment[d] (*1,000*)													
Mining	79	56	57	53	55	66	59	63	66	66	68	...	...
Manufacturing	114	208	238	258	258	260	259	259	260	260	260	...	...
Transport	...	...	55	64	66	68	67	68	68	68	68	...	...
Index of earnings[e]													
Mining	...	98	100	105	131	174	163	176	199	210	223	...	...
Manufacturing	...	80	100	111	125	141	137	137	149	157	152	...	...
Index of real earnings[e]													
Mining	...	111	100	110	124	150	142	157	163	172	181	...	...
Manufacturing	...	90	100	117	119	122	119	123	122	129	123	...	...
INDIA													
Employment[f] (*1,000*)													
Factories under Factory Act	2,360	2,567	2,528	2,590	2,690	*2,744*	...	...	...	...	...	...	...
Cotton mills	644	741	744	741	758	807	790	826	826	827	809	820	...
Coal mines[g]	308	342	338	332	341	333	332	329	333	353	...	...	...
Central government[h]													
Office workers	...	209	213	221	251	281	266	276	281	286	291	295	...
Manual workers	...	406	403	412	396	388	394	391	388	390	384	373	...
Wages or earnings (*rupees*)													
Cotton mills[i] (*monthly*, Bombay)	...	89.3	96.0	96.3	94.8	98.8	100.2	102.2	100.8	100.9	101.7	107.9	...
Coal mines[j] (*weekly*, Jahria)	2.4[t]	13.0	13.2	14.2	14.2	17.4	14.5	20.1	20.6	20.4	...	...	...
JAPAN													
Employment[k] (*million*)													
All industries	34.6	37.3	39.6	40.1	41.5	42.3	43.6	43.0	43.0	41.1	44.0	44.4	...
Agriculture, forestry & hunting	16.4	16.4	17.2	16.9	17.2	16.8	18.6	17.9	16.7	13.9	17.6	17.8	...
Mining	0.6	0.6	0.6	0.6	0.5	0.5	0.4	0.5	0.5	0.6	0.6	0.6	...
Manufacturing	6.3	6.5	6.8	7.1	7.2	7.7	7.4	7.7	7.6	8.1	7.9	7.8	...
Construction	...	1.5	1.6	1.7	1.8	1.8	1.7	1.8	1.9	2.2	1.9	2.0	...
Commerce	...	5.4	5.8	6.4	6.8	7.0	7.0	7.0	7.3	7.4	7.3	7.4	...
Transportation and communication and other public utilities	...	1.9	2.0	1.9	2.0	2.1	2.1	2.0	2.2	2.2	2.1	2.2	...
Services (non-government)	...	3.4	3.7	3.8	4.3	4.6	4.6	4.3	5.0	4.9	4.7	4.7	...
Index of earnings[m]													
Mining	33	89	100	102	110	122	116	125	144	112	132	141	201
Manufacturing	28	88	100	106	112	124	117	124	149	111	124	164	119
Index of real earnings[m]													
Mining	53	94	100	96	105	115	110	119	135	103	121	128	182
Manufacturing	45	94	100	100	106	117	110	117	140	102	113	150	108
Daily money wages of agricultural labour, male (*yen*)	185	230	257	285	301	308	317	313	319	295	329	348	...
KOREA, southern													
Index of earnings in manufacturing and construction industries[en] (Seoul)	1	61	100	176	297	357	349	363	374	...	...	...	...
PHILIPPINES													
Index of employment[p]													
Mining	...	108	100	77	123	123	127	123	116	121	121	...	...
Manufacturing	...	91	100	106	151	152	154	145	152	166	158	...	...
Index of wages[q] (Manila)													
Skilled	101	98	100	101	101	101	101	102	100	100	100	101	...
Unskilled	92	97	100	99	102	103	102	104	104	103	102	103	...
Index of real wages[q] (Manila)													
Skilled	90	93	100	105	106	104	105	104	101	103	104	102	...
Unskilled	82	93	100	103	107	106	106	106	105	106	105	104	...
THAILAND													
Employment in mining[f] (*1,000*)	10.4	14.9	16.1	14.7	*15.6*	*16.6*	*16.2*	*17.0*	*17.3*	*17.1*	...	...	...
VIET-NAM													
Daily wages[s] (Saigon-Cholon, *piastre*)													
Skilled	22.0[u]	41.2	55.6	73.2	86.7	89.4	88.9	...	89.4	...	...	...	...
Unskilled (male)	15.4[u]	22.8	31.8	37.4	47.8	56.0	50.5	...	56.0	...	...	...	...

a. Original bases for wages or earnings index: *Ceylon*, 1939; *China* June 1949; *Japan*, 1951; *Korea*, 1936; *Philippines*, 1955.
b. Daily rates of minimum wages (basic wages plus special allowance).
c. Monthly wage rates for unskilled male workers in government employment.
d. Staffs and permanent workers at end of period.
e. Daily average of wages and allowances including payment in kind.
f. Daily averages.
g. Average daily employment in all coal mines governed by the Indian Mines Act. Monthly figures are slightly short of total coverage.
h. Central Government establishments excluding railways. Office workers comprise administrative, executive and clerical staffs; manual workers comprise skilled, semi-skilled and unskilled workers. Figures relate to end of period.
i. Monthly minimum basic wages plus dearness allowance.
j. Average weekly earnings (basic wages plus dearness allowance and other payments) of underground miners and loaders in coal mines.
k. For 1948, average for calendar week beginning first Sunday of each month. From 1952, average for the week ending on the last day of the month, except for December when the week prior to holiday seasons was chosen.
m. Average monthly cash earnings per permanent worker.
n. Excluding looms.
p. Comprises all full and part-time employees of 600 cooperating establishments in the Philippines who were on the payroll, i.e., who worked during, or received pay for, the pay period ending nearest the 15th of the month. Excluding proprietors, self-employed persons, domestic servants and unpaid workers.
q. Daily average wage rates of all classes of workers.
s. Last day of the period.
t. Average daily earnings in December.
u. 1949.

End of period

	1948	1952	1953	1954	1955	1956	1956 II	1956 III	1956 IV	1957 I	1957 II	1957 Jul	1957 Aug
BURMA (*Mn kyats*)													
Money supply	499	599	753	842	1,116	1,343	1,368	1,358	1,343	1,438	1,337	1,289	1,257
Currency: net active	335	416	500	567	725	830	895	857	830	977	894	854	826
Deposit money	164	183	253	275	391	513	473	501	513	461	443	435	431
Private time deposits	27	46	52	77	122	104	112	108	104	112	114	118	...
Government deposits	53	567	498	301	253	248[r]	263	338	248[r]	292	204	...	...
Union Bank of Burma	53	567	464	183	131	117	153	187	117	70	46	49	56
Commercial Bank[a]	...	...	34	118	122	131[r]	110	151	131[r]	222	158	...	...
Bank clearings △	149	181	234	241	283	333	340	370	312	399	352	...	...
Foreign assets	406	989	1,058	643	540[r]	652	660	726	652	598	569	625	692
Union Bank of Burma[b]	358	940	991	555	415	535	510	588	535	445	450	522	523
Commercial banks	48	49	67	88	124[r]	117	150	138	117	153	119	103	69
Claims on private sector (commercial banks)	73	162	148	169	175	210	240	192	210	305[r]	341	343	347
Claims on government	147	187	218	549	945	1,031	1,031[r]	1,092	1,031	1,190[r]	1,057	942	1,002
Union Bank of Burma[c]	139	162	150	388	652	662	756	775	662	838	802	684	725
Commercial banks	8	25	68	161	293	369	275[r]	317	369	352[r]	255	258	277
Rates of interest (*% per annum*)													
Call money rate △	...	1.64	1.10	0.98	1.27	0.94	1.00	0.92	0.50	1.33	1.17	1.00	1.00
Yield of long term gov't bonds[d] △	...	3.00	3.00	3.00	3.00	3.00	3.00	3.00	3.00	3.00	3.00	3.00	3.00
CAMBODIA (*Mn riels*)													
Money supply													
Currency: in circulation	...	...	...	...	999	1,058	1,024	1,026	1,058	1,262	1,392	1,410	1,441
Demand deposits in commercial banks	...	...	...	...	1,035	1,104	1,097	1,034	1,104	1,314	1,343	1,288	1,378
Private time deposits	...	...	...	...	37	15	5	11	15	12	17	21	24
Bank clearings △	...	...	125	273	446	412	443	405	395	389	511	504	426
Foreign assets	...	...	...	...	1,968	2,559	2,204	2,365	2,559	3,003	3,107	3,195	3,256
Banque Nationale du Cambodge	...	...	...	...	1,751	2,454	2,037	2,196	2,454	2,771	2,871	2,990	3,065
Commercial Banks	...	...	...	...	217	105	167	169	105	231	236	205	190
Claims on private sector	...	...	...	...	329	563	500	470	563	592	807	827	857
Claims on government by Banque Nationale du Cambodge	...	...	...	...	1,014	1,014	1,014	1,014	1,014	1,014	1,014	1,014	1,014
CEYLON (*Mn rupees*)													
Money supply	607	896	827	957	1,073	1,128	1,056	1,064	1,127	1,107	1,045	1,057	1,024
Currency: net active	241	357	335	342	384	402	410	409	401	409	426	421	425
Deposit money	366	539	492	615	688	726	647	654	726	698	619	635	599
Private time deposits	253	390	387	420	451	509[r]	478	502	509[r]	512[r]	532	529	539
Government deposits	...	59	53	69	116	176	230	209	176	171	104	112	126
Central Bank of Ceylon	...	10	7	16	42	67	128	51	67	73	9	7	31
Commercial Banks	...	49	46	53	74	109	102	158	109	98	96	104	95
Bank clearings △	391	688	671	684	758	735	718	772	732	785	728	738	790
Bank debits[e] △	...	1,109	1,148	1,107	1,060	1,063	1,048	1,076	1,084	1,253	1,134	1,196	1,148
Foreign assets	636	497	342	656	880	898	896	906	898	861	720	724	740
Central Bank of Ceylon	462	401	245	524	655	737	730	729	737	703	588	598	624
Commercial Banks	174	96	97	132	225	161	166	177	161	158	132	126	116
Claims on the private sector (commercial banks)	82	195	207	247	256	344	314	316	344	369	369	373	383
Claims on government	369	752	794	621	601	676	658	656	676	693[r]	724	739	711
Central Bank of Ceylon	...	161	223	27	18	11	17	14	11	11	73	65	49
Other banks	369	591	571	594	583	665	641	642	665	682[r]	651	674	661
Rates of interest (*% per annum*)													
Call money rate △	...	0.50	0.96	*0.50*	*0.50*	*0.50*	*0.50*	*0.50*	*0.50*	*0.58*	*0.92*	*1.50*	*1.50*
Treasury bill rate △	0.22	0.72	1.91	1.59	0.79	0.68	0.66	0.76	0.74	0.53	0.80	1.02	1.04
Yield of long term gov't bonds[f] △	2.94	2.93	3.85	3.79	3.13	3.04	3.05	3.03	3.01	3.00	2.99	2.98	3.00
CHINA (Taiwan, *Mn NT dollars*)													
Money supply[r]	...	1,286	1,683	2,128	2,555	3,229	2,591	2,915	3,229	3,267	3,414	3,475	3,521
Currency: net active	...	712	918	1,140	1,368[r]	1,540	1,319	1,366	1,540	1,534	1,606	1,588	1,667
Deposit money[r]	...	574	765	988	1,187	1,689	1,272	1,549	1,689	1,733	1,808	1,887	1,854
Time deposits in banks	...	...	...	...	970	1,038	875	934	1,038	1,137	1,227	1,213	1,304
Government deposits[r]	...	...	602	823	1,030	1,244	1,240	1,394	1,244	1,659	1,706	1,738	1,813
Bank of Taiwan[g]	...	...	536	743	826	1,167	985	1,221	1,167	1,475	1,543	1,558	1,634
Other banks[r]	...	...	66	80	203	77	255	174	77	185	163	180	180
Counterpart funds	...	...	637	630	1,405	1,550	1,511	1,352	1,550	1,732	1,673	1,571	1,568
Bank clearings △	...	862	1,740	1,720	2,887	3,872	3,874	3,718	4,574	4,167	4,887	5,348	5,379
Claims on private sector[hr]	...	...	...	1,349	2,121	2,467	2,179	2,365	2,467	2,654	2,975	3,102	3,254
Bank of Taiwan	...	...	...	62	279	335[r]	333	356[r]	335[r]	428[r]	549[r]	589[r]	618
Other banks[r]	...	...	...	939	1,420	1,555	1,361	1,485	1,555	1,654	1,740	1,803	1,899
Related institution	...	...	...	348	422	576[r]	485	524	577	572	686	710	737

15. CURRENCY AND BANKING *(Cont'd)*

End of period

	1948	1952	1953	1954	1955	1956	1956 II	1956 III	1956 IV	1957 I	1957 II	1957 Jul	1957 Aug
CHINA (Taiwan, *Mn NT dollars*) *(Cont'd)*													
Claims on government[ir]	...	...	...	1,323	1,586	1,905	1,685	1,649	1,905	2,250	2,238	2,154	2,181
Bank of Taiwan[r]	...	...	...	1,310	1,574	1,882	1,664	1,631	1,882	2,226	2,211	2,145	2,172
Other banks	...	...	...	13	12	23	21	18	23	24	27	9	9
Claims on public enterprises[hr]	...	...	...	1,595	1,957	2,472	2,159	2,506	2,472	2,545	2,420	2,451	2,561
Bank of Taiwan	...	...	...	1,506	1,860	2,385	1,920	2,385	2,385	2,460	2,353	2,401	2,503
Other banks[r]	...	...	...	90	97	86	239	121	86	86	67	51	57
Call money rate (% *per annum*) △	...	10.80	9.00	7.20	7.20	5.70	5.40	5.40	5.40	5.40	5.40	...	...
HONG KONG (*Mn HK dollars*)													
Money supply													
Currency notes: in circulation	783	802	802	728	727	732	727	730	732	750	753	753	755
Bank clearings △	689	1,195	1,035	1,140	1,160	1,276	1,277	1,225	1,317	1,408	1,371	1,392	1,378
INDIA (*1,000 Mn rupees*)													
Money supply	19.76	17.13	17.09	18.32	20.47	21.79	21.89	21.09	21.79	23.13	23.43	23.10	22.40
Currency: net active	12.70	11.56	11.66	12.25	13.86	14.87	15.04	14.36	14.87	15.56	15.63	15.21	14.89
Deposit money	7.06	5.57	5.43	6.08	6.61	6.92	6.84	6.73	6.92	7.56	7.80	7.88	7.51
Private time deposits	3.13	4.40	4.68	5.26	6.13	6.98	6.74	6.92	6.98	7.19	8.00	...	...
Government deposits (Reserve Bank of India)	2.16	1.78	1.16	0.60	0.59	0.65	0.62	0.76	0.65	0.70	0.58	0.60	0.60
Bank clearings △	5.55	5.71	5.49	5.58	6.52	7.03	7.04	6.72	7.30	8.02	7.48	7.48	6.60
Foreign assets (Reserve Bank of India)	10.67	7.46	7.63	7.71	7.75	6.48	7.32	6.55	6.48	6.45	5.71	5.38	4.98
Claims on private sector	4.26	5.54	5.47	6.16	7.04	8.84	8.46	8.42	8.84	9.76	10.34	...	...
Commercial Banks	4.26	5.37	5.28	5.95	6.78	8.48	8.12	8.05	8.48	9.44	9.87	...	...
Cooperative banks	...	0.17	0.19	0.21	0.26	0.36	0.34	0.37	0.36	0.32	0.47	0.49	0.52
Claims on government	10.78	11.94	11.78	12.11	14.05	16.93	15.55	15.79	16.93	18.39	19.82	...	...
Reserve Bank of India	4.86	6.44	6.06	6.04	7.13	9.82	8.70	8.63	9.82	11.40	12.93	13.26	12.92
Other banks	4.63	4.34	4.58	4.98	5.74	5.96	5.60	6.01	5.96	5.81	5.69	...	...
Treasury currency	1.29	1.16	1.14	1.09	1.18	1.15	1.25	1.15	1.15	1.18	1.20	1.15	1.13
Rates of interest (% *per annum*)													
Call money rate △	0.50	2.02	2.12	2.35	2.59	3.21	3.13	3.15	3.46	3.50	3.50	3.50	3.50
Yield of long-term govt. bonds[j] △	...	3.69	3.64	3.65	3.72	3.92	3.89	3.96	4.06	4.06	4.07	4.12	4.21
INDONESIA (*1,000 Mn rupiah*)													
Money supply	2.81	6.72[r]	7.64[r]	10.96	12.78[r]	13.39	11.76	12.40	13.39	13.36	15.13	16.30	...
Currency: net active	1.53	4.35[r]	5.22	7.54	8.83[r]	9.37	8.21	8.49	9.37	9.33	10.85	11.63	...
Deposit money	1.28	2.37[r]	2.42[r]	3.42	3.95[r]	4.02	3.56	3.91	4.02	4.03	4.28	4.67	...
Private time deposits	...	0.18	0.24	0.29	0.34	0.52	0.35	0.35	0.52	0.39	0.40	0.42	...
Foreign assets (net)	0.79	1.79	2.02	1.73	2.74	1.66	0.98	1.27	1.66	1.24	0.94	1.04	...
Bank Indonesia (net)	0.55	0.91	1.30	1.15	1.95	0.90	0.50	0.73	0.90	0.60	0.56	0.75	...
Gross foreign assets	0.55	1.78	2.40	2.89	3.50	2.89	2.18	2.58	2.89	2.48	2.20	2.38	2.51
Foreign liabilities[k]	...	0.87	1.10	1.74	1.55	1.99	1.68	1.85	1.99	1.88	1.64	1.63	...
Other banks	0.24	0.88	0.72	0.58	0.79	0.76	0.48	0.54	0.76	0.64	0.38	0.29	...
Claims on private sector	0.27	2.42	2.40	2.83	4.02	5.05	4.67	4.75	5.05	5.00	4.27	4.22	...
Bank Indonesia	0.10	0.73	0.44	0.46	0.86	1.00	0.90	0.86	1.00	0.85	0.90	0.77	...
Other banks	0.17	1.69	1.96	2.37	3.16	4.05	3.77	3.89	4.05	4.15	3.37	3.45	...
Claims on government	1.80	5.42	5.88	9.27	9.29	11.46	9.61	10.43	11.46	12.56	15.66	...	...
Bank Indonesia	0.78	5.03	5.40	8.61	8.51	10.58	8.86	9.67	10.58	11.38	14.29	15.62	...
Other banks	0.22	0.13	0.14	0.18	0.21	0.24	0.22	0.22	0.24	0.28	0.44	...	...
Treasury currency	0.80	0.26	0.34	0.48	0.57	0.64	0.53	0.54	0.64	0.90	0.93	0.91	...
JAPAN (*1,000 Mn yen*)													
Money supply	618	1,265	1,439	1,463	1,698	2,022	1,642	1,711	2,022	1,858	1,804	1,703	1,673
Currency: net active	338	554	609	604	648	746	567	566	746	618	642	620	610
Deposit money	280	710	829	859	1,049	1,276	1,074	1,145	1,276	1,240	1,162	1,083	1,063
Time deposits (other banks)	133	1,031	1,336	1,588	2,089	2,674	2,294	1,446	2,640	2,780	2,841	2,931	2,990
Government deposits	14	107	93	86	169	187	178	198	187	370	145	133	132
Bank of Japan	14	92	60	56	51	54	42	52	54	237	53	44	47
Other banks	...	15	33	30	118	133	136	146	133	133	92	89	85
Bank clearings △	236	1,624	2,080	2,430	2,750	3,342	3,107	3,355	4,033	3,794	4,094	4,283	4,181
Foreign assets	...	419	366	407	530	593	573	567	593	513	414	415	412
Bank of Japan	...	18	18	18	185	179	177	178	179	180	114	91	74
Government	...	378	304	350	297	364	348	351	364	284	243	263	277
Other banks	...	23	44	39	48	50	48	38	50	50	56	60	62
Claims on private sector	419	2,204	2,801	2,995	3,341	4,404	3,643	3,993	4,404	4,747	5,134	5,179	5,284
Bank of Japan	52	223	299	243	32	140	63	91	140	276	475	484	521
Other banks	367	1,981	2,502	2,752	3,309	4,264	3,580	3,902	4,264	4,471	4,659	4,695	4,763
Claims on government	408	359	368	527	619	639	504	483	638	562	268	293	283
Bank of Japan	332	324	326	485	555	587	455	435	587	511	218	243	233
Other banks	76	35	42	42	64	52	49	48	51	51	50	50	50
Rates of interest (% *per annum*)													
Call money rate (Tokyo) △	...	8.05	7.82	7.84	7.36	6.57	5.54	7.30	7.79	9.13	10.89	12.78	12.05
Yield of long-term gov't bonds[m] △	...	5.50	6.68	7.01	6.33	6.34	6.33	6.34	6.34	6.34	6.33	...	...

End of period

	1948	1952	1953	1954	1955	1956	1956 II	1956 III	1956 IV	1957 I	1957 II	1957 Jul	1957 Aug
KOREA (southern, *1,000 Mn hwan*)													
Money supply	...	15.5	33.6	62.0[r]	97.3	131.6	108.4	112.1	131.6	127.2	123.7	126.9	128.7
Currency: in circulation	...	9.8	22.4	40.0[r]	58.8	73.3[r]	54.4[r]	60.9[r]	73.3[r]	63.6[r]	61.2	62.0	64.9
Deposit money	...	5.7	11.2	22.0[r]	38.6	58.2	54.0[r]	51.2[r]	58.2	63.5	62.5	64.9	63.7
Uncleared checks and bills	...	1.0	2.0	4.2	6.0	15.2	12.8	12.7	15.2	12.9	9.5	8.6	8.6
Time deposits[n]	...	0.5	3.8	4.7	9.8	16.6	16.8	18.5	16.6	13.9	14.4	13.9	14.0
Bank clearings △	0.2	13.7	21.4	51.8	107.4	207.7	181.1	221.9	216.8	201.7	210.8	174.5	193.1
Government deposits	...	8.7	15.9	17.6	33.4	68.0	63.5	70.7	68.0	93.4	111.8	111.6	107.3
Counterpart funds	...	—	0.2	16.1	14.2	83.0	55.2	50.0	83.0	100.0	108.1	114.1	119.7
Foreign assets (Bank of Korea)	...	4.7	12.6	8.4	14.2	15.7	14.5	15.6	15.7	18.5	19.6	19.6	19.6
Gross foreign assets	...	5.0	19.6	19.4	47.4	48.6	47.8	48.6	48.6	51.5	52.4	52.4	52.5
Foreign liabilities[p]	...	0.3	4.4	8.5	23.4	23.1	23.5	23.2	23.1	23.2	23.0	23.0	23.1
Revaluation proceeds	...	...	2.6	2.5	9.8	9.8	9.8	9.8	9.8	9.8	9.8	9.8	9.8
Claims on private sector	...	6.0	20.8	24.0	42.6	76.6	65.1	78.6	76.6	74.5	84.7	88.5	91.7
Bank of Korea	...	0.6	5.5	2.0	5.5	5.8	5.9	5.8	5.8	5.7	6.0	5.8	5.7
Other banks	...	5.4	15.3	22.0	37.1	70.8	59.2	72.8	70.8	68.8	78.7	82.7	86.0
Claims on government	...	12.2	24.7	68.0	111.4	213.4	163.0	159.9	213.4	254.7	270.3	279.1	287.0
Bank of Korea	...	12.0	24.1	66.9	109.5	209.7	160.2	156.7	209.7	250.1	265.6	274.3	282.0
Other banks	...	0.2	0.6	1.1	1.9	3.7	2.8	3.2	3.7	4.5	4.7	4.8	5.0
Claims on official entities	...	2.5	4.7	0.9	3.5	5.4	2.7	4.8	5.4	5.5	5.1	5.7	5.9
Bank of Korea	...	1.4	1.8	0.5	2.7	4.0	2.0	4.0	4.0	4.0	4.0	4.0	4.0
Commercial Banks	...	1.1	2.9	0.4	0.8	1.4	0.7	0.8	1.4	1.5	1.1	1.7	1.9
MALAYA (Fed. of) and SINGAPORE (*Mn Malayan dollars*)													
Money supply	...	...	1,509	1,562	1,796	1,806	1,753	1,800	1,806	1,805	1,740	...	...
Currency: net active	...	...	674	710	861	892	857	876	892	896	887	...	...
Deposit money	598	989	835	852	935	914	896	924	914	909	853	876	...
Time deposits	147	357	400	437	628	574	622	610	574	593	587	586	...
Bank debits[q] △	...	3,396	2,946	2,828	3,412	3,757	3,616	3,782	3,900	3,931	3,666	4,128	...
Foreign assets hold by banks	263	574	550	561	701	515	588	636	515	468	455	...	...
Claims on private sector	436	621	580	642	776	913	836	860	913	969	918	951	...
Claims on government	97	149	162	174	188	194	185	184	194	189	182	180	...
PAKISTAN (*Mn rupees*)													
Money supply	2,698	3,220	3,568	3,856	4,546	4,933	4,665	4,566	4,933	5,069	5,066	5,046	4,996
Currency in circulation	1,708	2,151	2,372	2,575	2,990	3,464	3,053	3,064	3,464	3,516	3,432	3,305	3,267
Deposit money	990	1,069	1,196	1,281	1,556	1,469	1,612	1,502	1,469	1,553	1,634	1,741	1,729
Time deposits	460	557	644	808	889	968	966	969	968	991	1,001	1,055	1,062
Bank clearings[s] △	306	534	536	555	593	896	621	613	766	785	738	708	655
Government deposits	923	377	216	173	152	432	250	359	432	523	623	715	682
Foreign assets (State Bank of Pakistan)[t]	1,629	933	935	1,038	1,648	1,659	1,738	1,665	1,659	1,686	1,463	1,342	1,294
Claims on private sector (scheduled banks)	410	792	802	984	1,183	1,256	936	988	1,256	1,223	1,149	1,121	1,084
Claims on government	176	1,214	2,070	2,394	2,243	2,774	2,250	2,353	2,774	3,086	...	...	...
State Bank of Pakistan	176	1,214	1,250	1,457	1,207	1,664	1,154	1,223	1,664	1,680	1,800	1,821	1,818
Other banks	...	...	820	937	1,036	1,110	1,096	1,130	1,110	1,120	...	...	...
Treasury currency	66	203	213	230	260	279	269	269	279	287	284	282	280
Claims on provincial governments (scheduled banks)	...	...	91	92	110	115	107	118	115	116	106	106	106
Rates of interest (*% per annum*)													
Call money rate △	...	2.10	1.01	1.30	1.45	2.04	1.49	1.08	2.69	2.88	2.16	1.63	0.80
Yield of long-term government banks[u] △	...	2.98	3.06	3.14	3.15	3.15	3.14	3.13	3.16	3.20	3.19	3.20	3.20
PHILIPPINES (*Mn pesos*)													
Money supply	...	1,198	1,224	1,227	1,336	1,499	1,417	1,448	1,499	1,567	1,566	1,562	1,540
Currency: net active	...	630	666	677	670	719	675	689	719	732	726	722	733
Deposit money	...	568	558	550	666	780	742	759	780	835	840	840	808
Private time deposits	279	407	461	528	585	656	598	631	656	698[r]	713	725	732
Bank clearings △	381	480	520	550	614	739	744	719	775	849	880	956	886
Bank debits[v] △	772	659	743	815	921	1,145	1,189	1,125	1,132	1,282	...	...	...
Government deposits	22	175	150	132	196	285	334	330	280	250	265	248	270
Central Bank of the Philippines	...	116	55	32	63	112	190	158	112	90	107	95	125
Philippine National Bank	22	59	95	100	133	168	144	172	168	159	158	153	145
Foreign assets	883	612	593	545	418	440	468	475	440	448[r]	381	370	381
Central Bank	800	472	481	415	310	322	332	338	322	293[r]	239	235	246
Other banks (net)	83	140	112	130	108	118	136	137	118	156[r]	143	135	136

15. CURRENCY AND BANKING *(Cont'd)*

End of period

	1948	1952	1953	1954	1955	1956	1956 II	1956 III	1956 IV	1957 I	1957 II	1957 Jul	1957 Aug
PHILIPPINES (*Mn pesos*) (*Cont'd*)													
Claims on private sector (other banks)	...	762	846	935	1,100	1,240	1,105	1,190	1,240	1,310	1,372	1,408	1,419
Claims on government	40	376	439	417	577	707	702	709	707	714	699	701	703
Central Bank of the Philippines	...	357	344	304	349	381	315	297	381	438	400	404	464
Other banks	40	19	95	113	228	326	387	412	326	276	299	297	230
Claims on official entities	78	98	124	160	226	268	268	262	268	295	328	309	307
Central Bank of the Philippines[w]	...	44	52	115	185	200	199	198	200	238	239	249	250
Other banks	78	54	72	45	41	68	69	64	68	57	88	60	58
THAILAND (*Mn baht*)													
Money supply	2,881	4,932	5,438	6,058	6,915	7,305	7,225	7,502	7,305	7,755	7,595	...	...
Currency: net active	2,205	3,678	4,016	4,548	5,176	5,421	5,125	5,247	5,421	5,657	5,378	...	...
Deposit money	676	1,254	1,422	1,510	1,739	1,884	2,100	2,255	1,884	2,098	2,217	...	...
Time deposits	292	436	518	652	824	929	882	927	929	928	...	...	...
Government deposits	568	841	1,221	974	1,110	1,249	1,164	1,251	1,249	1,403	1,574	...	...
Bank of Thailand	533	670	975	693	763	1,137	1,012	1,081	1,137	1,255	1,401	...	...
Deposit money banks	35	171	246	281	347	112	152	170	112	148	173	...	...
Bank clearings △	774	2,270	2,366	2,230	2,598	2,816	2,640	2,626	2,906	3,163	3,036	3,149	3,122
Foreign assets	2,180	2,344	1,159	193	2,643	2,922	2,742	2,828	2,922	3,205	3,091	3,109	3,181
Bank of Thailand	2,180	4,434	3,782	3,426	4,585	4,840	4,710	4,744	4,840	5,123	4,994	5,012	5,084
Exchange Fund	—	—	—	—	1,260	1,260	1,260	1,260	1,260	1,260	1,260	1,260	1,260
Profits on exchange	—	2,090	2,623	3,233	3,202	3,178	3,228	3,176	3,178	3,178	3,163	3,163	3,163
Claims on private sector	449	1,437	1,978	2,281	3,000	3,440	3,209	3,316	3,440	3,920	4,014	...	...
Claims on government	1,497	2,946	5,221	6,520	5,724	6,147	5,832	5,997	6,147	...	...	...	...
Bank of Thailand	1,186	2,742	4,965	6,340	5,452	5,854	5,610	5,780	5,854	5,864	5,911	5,959	5,880
Deposit money banks	311	204	256	180	272	293	222	217	293	...	...	...	...
Treasury bill rate (*% per annum*) △	1.32	2.17	2.25	2.27	2.26	2.28	2.25	2.25	2.28	2.28	2.26	2.24	2.26
Exchange rate (buying): Baht to US dollar △	19.69	18.64	18.11	21.20	21.39	20.62	20.70	20.67	20.57	20.50	20.60	20.60	20.57
VIET-NAM (southern, *1,000 Mn piastre*)													
Money supply	...	...	...	...	12.77	12.74	13.00	12.81	12.74	13.17[r]	12.44	...	...
Currency: net active	...	...	...	...	7.37	9.00	7.92	8.50	9.00	9.10	9.00	...	...
Deposit money	...	...	...	...	5.40	3.74	5.08	4.31	3.74	4.07	3.44	...	...
Time deposits	...	...	...	...	0.59	1.36	1.48	1.49	1.36	1.67	1.57	...	...
Bank clearings △	...	...	...	...	3.13	2.86	2.69	3.05	2.66	2.88	3.11	3.76	3.76
Foreign assets	...	...	...	...	4.81	4.93	5.11	5.11	4.93	5.15	5.16	5.15	5.07
Banque Nationale du Viet-Nam	...	...	...	1.05	4.37	4.62	4.58	4.71	4.62	4.49	4.50	4.46	4.34
Other banks	...	...	...	...	0.44	0.31	0.53	0.40	0.31	0.66	0.66	0.69	0.73
Claims on private sector	...	...	...	...	1.43	1.72	1.45	1.44	1.72	2.07	2.74	2.82	2.74
Claims on government	...	...	...	10.68	10.68	10.68	10.68	10.68	10.68	10.68	10.68	10.68	10.68
Banque Nationale du Viet-Nam	...	...	...	10.68	10.68	10.68	10.68	10.68	10.68	10.68	10.68	10.68	10.68

GENERAL NOTE: *Net active currency:* Total currency outstanding less holdings in all banks including the central bank and in government treasuries. *Currency in circulation:* Total currency outstanding less holdings in all banks including the central bank. *Deposit money:* Private deposits in all banks, subject to cheque or withdrawable on demand, excluding inter-bank liabilities. *Government deposits:* Including government currency holdings. *Bank clearings:* Total value of cheques and other collection items cleared through clearing houses. *Claims on private sector:* Claims by the bank system arising from the rendering of loans and advances, discounting of bills, the holding of securities in private companies, etc. *Claims on government:* Holdings of government bonds, treasury bills and government guaranteed securities by the bank system, plus circulation of treasury currency. *Rates of interest:* Rates prevailing in the capital city, except for India, where Bombay rates are used. *Call money rate* is inter-bank rate on money at call.

△ Monthly averages or calendar months.

a. Deposits of State Boards in State Commercial Bank.

b. Including foreign assets of the Burma Currency Board up to July 1952.

c. Including a constant amount of 99 million kyats, which is the value of a promissory note issued as cover for the currency issue.

d. 5 year treasury bonds.

e. Debits to demand deposits of private sector.

f. 3% national development loan 1965-70 to earliest redemption date.

g. Excluding currency held by government.

h. Excluding holdings of securities.

i. Excluding government bonds.

j. Running yield of 3% paper to earliest redemption date.

k. Payments agreement liabilities, mainly to Japan and the Netherlands.

m. Weighted yield (simple rate of interest) to latest redemption date of medium dated government bonds issued during the period stated.

n. Including deposits of local government and government institutions in commercial banks and non-governmental foreign currency deposits in Bank of Korea.

p. Clearing accounts with Japan.

q. Cheques sent out for clearing and debits to current deposit account.

s. The number of clearing houses was increased in 1952 and 1953.

t. Including outstanding assets receivable from the Reserve Bank of India under the partition agreements; excluding foreign assets of Banking Department from 1952.

u. Yield to maturity of 3% bonds 1968.

v. Total debits to checking account of private sector, except for 1948 when debits to government deposits are included.

w. Including a constant amount of 107 million pesos from 1952, representing the difference between foreign assets transferred from the Treasury and its note and coin issue, for which the Bank assumed liability.

UNITED NATIONS

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